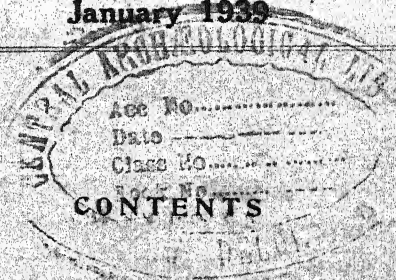




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 OF THE
Gujarat Research Society

Vol. I January 1939 No.



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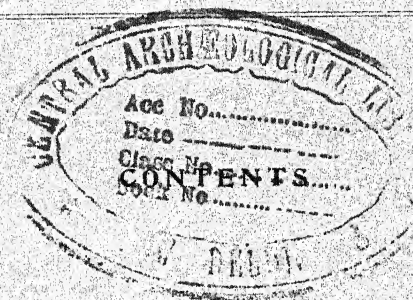
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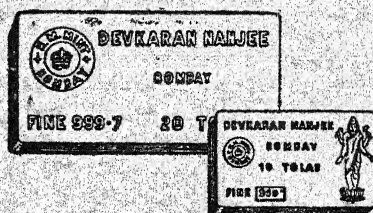
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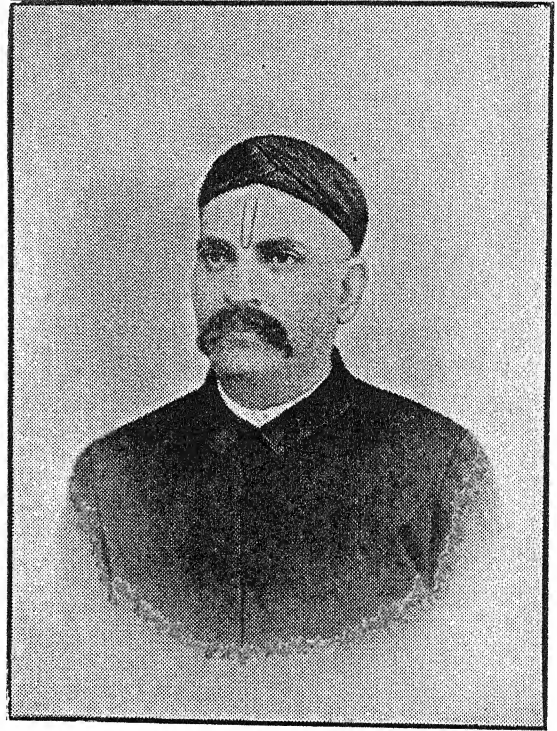
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RESEARCH IN GUJARAT *

Ladies and Gentlemen,

I have indeed great pleasure in welcoming you all who are assembled here to celebrate the first Anniversary of the Gujarat Research Society. Those of you who are not already connected with the Society would naturally like to know something about the necessity of its existence and the nature of its aims and objects. The aim of research, using that term in its widest sense, in any branch of knowledge, is to discover the underlying facts, which lie hidden beneath the mass of complex phenomena, and to trace a given effect to its ultimate causes. The object of research is to use the knowledge thus gained in improving the existing state of things and in removing defects.

The scope of research is thus as wide and comprehensive as the whole world of physical and human nature, and knows no narrow distinctions of races or countries. At the same time, every country and every province has its own peculiar history and environment which have moulded it into an entity having its own peculiar characteristics and problems, which require for their solution a close and detailed study involving research into their causes and effects, as well as into the mysteries of natural and human sciences, for new discoveries, which might help us in the march of individual and social progress.

Every province, therefore, requires a band of research workers to tackle its own problems, and like all provinces, Gujarat and its people, including therein all Gujarati-speaking people, have their own problems too. From early times the genius of Gujarat has turned towards business. It has been the predominant profession of her sons for centuries in the past. At the same time, blessed with a fertile soil, it has developed agriculture, extensive as well as intensive, on productive and profitable lines. But the love of ease, which has followed in the wake of comparative prosperity in the past, aided by climate which is mild and none too vigorous, the Gujaratis as a whole have always suffered from a lack of physical strength. The average

* Being the Address of the President of the Society, the Hon. Mr. Justice H. V. Divatia, delivered at the first Annual General Meeting of the Society, held in the University Convocation Hall on 5th February, 1938.

Gujarati has a keen mind in a weak body. To my mind, the biggest problem before the people of Gujarat to-day is the development of a healthy vigorous life in the present and future generations. We may not be a martial race, but we can certainly develop our physical stamina and build up better and sounder bodies by paying more attention to the inexorable laws of nature. The solution of this problem requires research into the causes which have led to the defects in bodily development, such as malnutrition, early marriage, climatic disadvantages, etc. In this connection I may state that our Society has already made a move for obtaining certain data relating to the physical measurements of persons from various Insurance Companies, and materials are also being collected from the medical inspection reports of Colleges and High Schools regarding the physical defects of students. We propose also to carry out and assist in the research as to the nutritive qualities of the diet ordinarily used by the Gujarati people.

The next important problem for Gujarat is the economic condition of its people. It has the good fortune of possessing industrial as well as agricultural resources, but the economic condition of its population, though comparatively better than in some of the other parts of India, requires a good deal of improvement at present when the struggle for existence is becoming keener and keener. This involves the problems of more efficient productive methods and a more equitable distribution of its wealth. In industrial areas, the questions relating to capital and labour are assuming more and more importance with the growth of industries. With the increasing education of our people, the problem of unemployment has already assumed a serious aspect. For the solution of these, and similar problems, we have to turn our attention to methods which might lead to greater production of the needs of life in our province, and also to utilise the natural resources of our province so as to give not only more employment to our people, but also to increase its general wealth. Gujarat possesses several mineral resources, which have not been hitherto properly explored. To take only one instance, we have got in various places mineral springs which contain valuable ingredients. The hot springs of Lasundra and Unai are already well-known to us, and there may probably be several others which are still undiscovered. There are certain places in Gujarat the water of which is said to be of great medicinal value for stomach and internal diseases, but although sporadic attempts have been made to find out the qualities of these springs and well waters, no systematic and

scientific research has been made to discover their utility. We drink here the mineral waters of Vichy, Evian and Karlsbad in Europe, but we have not yet begun the use of our own waters which may be equal, if not better in quality. It would be a great boon to the people if scientific research is carried out with regard to the different crops and plants for food as well as medicinal purposes. So far as I know, there does not exist a general agricultural and economic survey of Gujarat which might give one, an idea of the productive capacity of its different parts. Of late, a welcome move in this direction has been made by some young students by taking a particular area as a specimen, and to ascertain the physical, economic and social characteristics of its inhabitants, by collection of relevant statistics and other information.

Then there is also a good deal of scope for research from the sociological stand-point of the different communities residing in our province. It is well-known that Gujarat is one of the most, probably the most, caste-ridden province in India. It has developed special and peculiar customs resulting from the ramifications of castes and subcastes. Some of these customs have the effect of distinctly retarding our social intercourse. There have been small and minute sub-castes where the custom of marriage within their own small fold has resulted in early and ill-assorted marriages and narrow-minded prejudices for other castes. It is indeed high time that some research should be undertaken into the origin of this peculiar feature of our province. Such research would bring to light that most of the differences that separate us are artificial and that the reasons for observing those distinctions are no longer in existence in the present age, with the result that people will be induced to give up those customs and conventions, which have impeded our social progress in spite of a common culture which prevails throughout our province.

Then there is a good deal of scope for research work into the various religious sects that have established themselves in our province from very early times. Gujaratis have always been known for their religious fervour, in which more predominance is given to the emotional than to the spiritual and rational side of religion. In consequence, Gujarat has been, in the past, a happy hunting-ground for religious adventurers from different parts of India, who have in some cases played upon the credulity of the people. The result has been that there have sprung up unnecessary and artificial divisions of various

religious sects fighting and abusing each other with the result that instead of bringing man nearer to God, they have kept man away from Him. Research into the origin and growth of these sects and into their ultimate unity of ideal in spite of diversity of method leading to the religious reformation of the people presents great possibilities.

There also exists ample scope for research work for those who are interested in the History and Archæology of Gujarat. As you all are aware, Kathiawar is well-known not simply for its history but also for its archæology. A number of scholars have, in the past, devoted themselves to research work into the archæology of Gujarat and Kathiawar. But it cannot be said that the scope of that work has been exhausted. Even now we hear, every year, some new finds at different places in Gujarat throwing light upon its ancient culture. We have no doubt produced in the past one prominent scholar in this field. I refer to Pandit Bhagwanlal Indraji who has done pioneer research work in this connection. But very few Gujaratis have taken interest in this subject, and it is certainly to be hoped that more and more interest would be taken in this direction by Gujarati students of History and Ancient Culture.

I have dealt only with some of the important types of research that could be carried out, and which it is the aim of our Society to encourage and help as much as we can. Of late, with the growth of Post-Graduate studies in various departments, such research work has been no doubt undertaken and is being done by individual scholars as well as others on their own account. But there has been no co-ordinating body which can direct, help and guide them in their activities, and it is at present our desire to act as such a body which would bring together scholars as well as scientists in our province, and provide them with a common meeting place for the advancement of research. The spirit of research is still to be created and fostered in our midst. It must be admitted that Gujarat is lagging behind some other provinces of India which have their own research organisations, some of which have established reputation for solid work. The Bhandarkar Oriental Institute, the Ranade Economic Institute, the Maharashtra Itihasic Shamsodhan Mandal in the Deccan, the Bose Research Institute in Bengal are some of the prominent among these. There is now an increasing number of young and enthusiastic scholars in our province who would welcome the formation of a Society which might encourage them in their work of research, and

which might also act as a focussing centre for the diffused culture which higher education is spreading in our midst. It was to satisfy these aspirations that our Society was founded in this city about a year ago. It is natural that the number of persons who are interested in such cultural work must be small, especially in the beginning. It is also natural that its work by its very nature, cannot be spectacular. But even then, I am glad to tell you that the Society has made a promising start as you might have seen from the report which has been just now read to you. The Society is taking steps to form branches in various centres of our province. Its progress must necessarily be slow, but we are not without faith and hope that with the increase of education and culture in our province, the number of such persons will be on the increase. If the progress of our Society in the future is not satisfactory, the fault will not be wholly ours ; it will have to be shared by the educated people of our province from whom we expect an encouraging response. However, I do not at all desire to be pessimistic, and I am sure that you will all share my hope that the Society will not only justify its existence, but will also obtain that amount of co-operation in men and money which it has a right to expect from all those who feel a justifiable pride for our province. As you well know, our work, modest though it be in the beginning, requires pecuniary assistance for its development, and it cannot achieve substantial results without such assistance even though we have the requisite number of ardent research workers. I would, therefore, conclude by making a fervent appeal on behalf of our Society, to you all and to what is happily a large number of rich and generous people of Gujarat, including the Princes of Indian States, who have already established the reputation of our province as great donors by their magnanimous and munificent help to all deserving causes.

A PRELIMINARY NOTE ON THE PHYSICAL FITNESS OF THE GUJARATI SPEAKING POPULATION

By

P. G. SHAH

Even a superficial familiarity with the Gujaratis will lead an ordinary observer to remark that they are not endowed with super abundance of physical vigour and robustness. The population has certainly an unlimited capacity for continuous and persistent hard work in agriculture, trade, industry or business. Even in pursuits demanding great physical and nervous strain the people of Gujarat (including as it does Kathiawar and Cutch) have exhibited a tenacity of purpose and strength of character which have been the envy of the non-Gujarati population in the midst of which they have established new and prosperous colonies. The smallness of the build of the body may be regarded in a sense an ethnological characteristic and lightness of weight an advantage to a population employed in sedentary occupations, yet the fact remains that barring exceptions noticed here and there, the general physique of the people is below par both when compared with other races in India or when judged by recognised standards in other countries of the world. There is no difference of opinion as to the low level of physique of the Gujarati people, nor as to the great necessity of taking immediate steps to improve the same. But before any measures on a successful scale can be devised, the underlying facts should be carefully ascertained and thoroughly sifted. The Gujarat Research Society is keenly interested in getting the initial facts correctly compiled but before this work of collecting fresh figures is completed it will take considerable time. In the interval, this preliminary note is prepared from such records as are available. It is proposed to divide the investigation into three parts, one for children of the school-going age, the second for the young students attending the various colleges in Gujarat and the third for grown-up adults appearing in the records of Insurance Companies. The present note deals only with the college students and takes advantage of the existing information collected through the University of Bombay.

2. The medical inspections of students in the Bombay University has been undertaken only recently. It cannot be

considered to be as thoughtfully planned nor the results so systematically marshalled out by the reporters as by the Calcutta University. The Students Welfare Committee of the Calcutta University has been working for nearly twenty years and the results published are naturally more complete and useful. It is hoped that the authorities of the Bombay University will give facilities for a more vigorous and comprehensive work in this branch and provide more money for this investigation which is of such a fundamental importance to the well-being of the community. The published reports of the last few years supply a valuable index to the general health of the students. The students are divided into three classes, A, B and C. C class students are those, who are unfit for physical training, and whose health cannot be improved at all owing to some organic disease or could only be improved by a surgical operation. B class students are those whose physique is poor or who are underweight, which can be set right by physical training and exercises or by proper dieting. A class consists only of normal and physically fit students.

Table I showing the percentage of various classes of students in each college.

Colleges in Gujarat	1935-36			1936-37		
	A	B	C	A	B	C
Gujarat College, Ahmedabad ...	39.3	59.6	1.1	32.8	66.2	1
M. T. B. College, Surat ...	39.4	63.5	1.6	38.8	60.1	1.7
Baroda College ...	42.6	54.9	2.5	46	52	2
Bahuddin College, Junagadh ...	35.5	59.5	5.0	40.8	58	1.2
Samaldas College, Bhavnagar ...	40.4	58	1.6	50.6	46.3	1.6
<i>Colleges outside Gujarat proper.</i>						
Karnatak College, Dharwar ...	68.3	30.5	1.2	36.5	62.4	1.1
Lingaraj College, Belgaum ...	52.4	47	.6	62.9	37.2	.9
D. J. Sind College, Karachi ...	50.2	41.4	8.4	54	39.1	6.9
Fergusson College, Poona ...	55.4	43.4	1.4	57	41.8	1.2
Sir S. P. College, Poona ...	54	45	1	56.2	42.3	1.7
H. P. Thackersey College, Nasik ...	51.4	47.5	1.1	56.2	42.5	1.3
Elphinstone College, Bombay ...	53.3	46	.7	44.9	55.2	.9
Sydenham College, Bombay ...	51.4	45	3.6	55.5	41.5	3
Wilson College ...	50.9	47.5	1.6	43.3	54.3	2.4
St. Xavier's College ...	45.5	52.2	2.3	41.7	56.0	2.3
Grant Medical College ...	60.4	39.6	—	56.6	43.2	0.2

3. The percentage of students who can be considered as fit to belong to A class is very small in every one of the Gujarat

Colleges. The percentage of students of A class all over the Gujarat and Kathiawar Colleges varies between 30 and 40 and thus at least sixty per cent of the students are below the normal standard. In Colleges outside Gujarat, the percentage of students below the standard varies between 36 and 52. The state of affairs is deplorable for all students of the Bombay University in general, but for those in Gujarat and Kathiawar it is decidedly the worst. What is most alarming is that the figures for 1936-37 show a further deterioration in the Gujarat and Kathiawar Colleges, and it appears that unless some drastic steps are taken the situation will worsen every year. The proportion of the healthier class of students in the Colleges at Dharwar, Bombay and Poona is much higher and the Gujarat students will have to work up very hard to be able to present even a minimum show of physical efficiency, as compared with other students of the same *Alma Mater*.

4. With the good offices of Dr. S. B. Gadgil, F.R.C.S., who is in charge of the Medical inspection work of the University of Bombay, it was possible to examine the records of 835 students of the Gujarat College for the year 1937 with special reference to their physical measurements and weight. These cards have been subjected to detailed analysis according to age-groups ; and a statistical average has been worked out for each age. This statistical examination has revealed further that the Gujarat students present a low standard of physical measurements. The largest number of boys viz, 200 are those at the age 18. The average weight at this age is only 107.75, against 119 lbs., considered by Dr. Gadgil to be normal weight for Indian students. This deficit of 12 lbs is rather large, when it is remembered that it represents a shortage of as much as ten per cent. It appears that though the skeleton of height is there, the bones have to be fortified by more muscle and by a larger deposit of fat. It must be recognised that the section of the society which sends its children to the Colleges is intelligent and sufficiently well off to afford adequate facilities for physical training and to proper dieting. It is singularly unfortunate that inspite of increasing education and intelligence the physical stature is found to be so low. A nation that neglects its physical health is doomed to failure inspite of all the money that may be available for education or food, and yet this is exactly what the following figures prominently exhibit.

Table II showing the average physical measurements of students of the Gujarat College, Ahmedabad taken in 1937.

Age		No. of students	Average height in inches	Average weight in lbs.	Chest after ex- piration	Chest after ins- piration	Abdo- men
16	(Hindus)	50	64.74	100.75	28	30.8	23.3
	Normal	...	...	115	31	33.5	28.5
17	(Hindus)	129	65	106	28.75	31.5	24.2
	Normal	...	...	117	31	33.5	28.5
18	(Hindus)	200	64.8	107	29.25	32.16	24.5
	Normal	...	...	119	31	33.5	28.5
19	(Hindus)	136	65.0	113	29.9	32.9	24.9
	Normal	...	65.0	121	31	33.5	28.5
	(Muslims)	9	65.5	113	29.5	32.7	25.3
	(Parsis)	4	65.75	116	29.75	33.7	27.1
20	(Hindus)	127	64.7	111	29.4	32.6	24.8
	(Normal)	...	65	123	31	33.5	28.5
	(Muslims)	2	65.5	116	29.5	33	27
	(Parsis)	4	66.6	127	31.6	35.8	27.1
21	(Hindus)	57	65.4	113	29.5	32.6	25
	Normal	...	65	125	31	33.5	28.5
	(Muslims)	12	66.3	128	31.6	34.8	28.0
	(Parsis)	1	66	168	34	37.5	31.0
22	(Hindus)	123	65	113	30	33.5	25.4
	Normal	...	...	127	31	33.6	28.5
23	(Hindus)	19	65.33	111	29.5	32.7	25
	Normal	...	...	129	31	33.5	28.5
24	(Hindus)	5	65.1	110	29.8	31.3	25.3
	Normal	...	...	131	31	33.5	28.5
25	(Hindus)	5	65.4	128	30.9	33.8	26.4
	Normal	...	...	133	31	...	...

5. The total number of students measured and summarised here is only about 800 and though it would be more useful to cover a larger field, it is sufficiently large to arrive at a preliminary estimate about the normal standard for Gujarati students. The comparative figures for Muslims are not much different and evidently the difficulties of nutrition and exercise hamper also the growth of students of this community. On the other hand, the sprinkling of Parsee students, present in this College, represent an entirely different variety both in stature and weight. The students of this community exceed the averages fixed by Dr. Gadgil and show exemplary constitutions. They form a living example to their neighbours and confrères

in the matter of building up sound bodies capable of strenuous effort in life.

6. The medical inspection of the female students in the Colleges of Gujarat and Kathiawar has brought out certain unusual features. In the matter of proportion of A and B class students this group gives a satisfactory account in both the Surat and the Baroda Colleges, though for some inexplicable reasons the conditions in the Ahmedabad College shows a very low percentage of A class students. There are no female students in the Bhavnagar College and the two of them studying at Junagadh College have been put in A class giving a figure, which can scarcely be called a dependable statistical average. In the case of female students a normal standard for each age has not been fixed. The Parsi female students may be considered to supply a useful standard for comparison.

Table III showing the percentage of various classes of female students in each College.

		1935-36			1936-37		
		A	B	C	A	B	C
Gujarat College, Ahmedabad	...	35.4	64.6	nil	30.6	69.4	nil
M. T. B. College, Surat	...	53.3	46.7	nil	58.4	41.6	nil
Baroda College	...	62.2	31.6	6.2	62.9	33.8	3.3
Bahuddin College, Junagadh	..	nil	nil	nil	100.0	nil	nil (only two female stu- dents)
Samaldas College, Bhavnagar	...	nil	nil	nil	nil	nil	nil

Table IV showing the measurements of female students in Gujarat College.

Age		No. of students	Average height	Average weight	Chest after expiration	Chest after inspiration	Abdomen
16	Hindu Gujarati...	6	60.9	95.3	27.9	30	22.5
	Hindu Deccani ...	3	59.0	89.0	25.3	25.8	23.0
17	Hindu Gujarati ...	13	60.6	100.0	27.9	30.2	24.3
	Parsi ...	4	58.8	116	30.5	32.4	27.2
18	Hindu Gujarati ...	10	59.1	99.0	22.9	31.9	25.6
	Hindu Deccani ...	2	61.0	95.0	28.0	29.2	22.5
	Christian ...	1	48.0	83	26	26	22
19	Hindu Gujarati ...	9	60	95	28.3	29.5	23.8
	Hindu Deccani ...	4	60	89	28.25	29.5	22.75
20	Hindu Gujarati ...	4	62.4	92	28.4	30.2	25
	Hindu Deccani ...	1	51	97	30	31.5	27
21	Hindu Gujarati ...	1	60	102	31	32.5	25.6
22	Hindu Gujarati ...	1	62	104	30	31.5	24
25	Hindu Deccani ...	1	58	86	29	30	23

7. In the above table the Hindu female students were shown separately as Gujaratis and Deccanis with the idea of arriving at a correct average for the two ethnographically and culturally separate groups. But as a matter of fact there is little difference between the two Hindu groups evidently as the standard of living and food in families of the same social standing is almost identical. The largest difference is however noticed in the case of Parsi female students who, even at the early age of 17 and at a height which is not abnormal, make a mark both as regards weight and chest measurements. This group of four students makes a class by itself which is head and shoulders above the rest of the students at any age. Here is an example which shows how habits of life and conditions of diet and how a genial and not too severe an outlook on life can evolve a stronger strain out of people living together under identical conditions of climate and physical environment. As compared with this group, the general features of the health of

the female students in this college are as bad, if not positively worse than those in the case of the male students.

8. What is the remedy for this state of affairs? The problem is too complicated to suggest an easy solution. But physical exercise, a regular and early devotion to the sports and active games and above all a healthier life in open air may be mentioned on the external side. But in addition the diet should be better balanced and more wholesome. The diet of the Gujarati students was subjected to a critical but sympathetic examination by Dr. D. D. Kanga, Professor of Chemistry in Gujarat College in 1934. His conclusions are given in the following figures :—

	Proteins grammes	Fats grammes	Carbohydra- tes grammes	Total Calo- ries.
Standard figures as computed by Dr. Kanga	90 to 100	80 to 90	360 to 450	2520
Actuals as found in Kathiawadi B Club	52.42	157.14	276.98	2733
Actuals as found in Royal Club	55.02	147.18	368.83	2892

The caloric value does not show a great deficiency but on every other count the diet is ill-balanced and the amount of fat used is excessive, while protein content is heavily deficient. The proportion of animal proteins (milk and curd) is less in both cases, 14.31 grammes in the Kathiawad B Club and 10.39 in the Royal Club whereas it should be 30 to 33 grammes. Another drawback is that leafy vegetables are not at all used in both the Clubs.

"To remedy these faults," Dr. Kanga advises "the clubs should use leafy vegetables, increase the quantities of milk and curd and cut down the quantity of oils and fats, so that they come approximately to the standard figures. The Kathiawadi B Club should increase the quantities of wheat and pulses, the use of soya beans to the extent of an ounce and a half daily as sprouted beans or soya flour is also recommended for both the clubs."

9. The above analysis is an eye-opener in many ways. The monthly expenses in the students' clubs mentioned above are not low and the total quantity of food supplied is also not poor. But owing to the fundamental ignorance about the culi-

nary art and about the real dietary value of various articles of food, the diet which is so rich in fats and oils is wasted without supplying adequate nourishment to a growing young man. The excessive use of fats in frying food, besides lowering the food value thereof, reduces its digestibility and the young men grow up lean in size with their digestive organs impaired and with their health ruined. This manner of living during College days seriously affects the longevity and health-efficiency of the men, and the result as judged by statistics of Insurance Companies will be commented upon in another article. The suggestion of Dr. Kanga for increased use of milk is based on sound experience. "In the case of growing boys, an extra quantity of milk per day makes a substantial increase both in weight and height and this points to the immense benefit of milk not only for its fuel and protein value but also for the specific qualities of milk as food. It was ascertained recently by the Medical Research Council of Great Britain (vide Report on Diet for Boys published by His Majesty's Stationery Office, London) that "the addition of one pint of milk a day to a diet which by itself satisfied the appetite of growing boys, could convert an average annual gain of weight of 3.85 lbs per boy into one of 6.98 lbs and an annual average increase of height from 1.84 inches to 2.63." What a simple remedy for increasing the physical measurements of a people who are underweight?

THE PARSIS IN INDIA

By

Dr. IRACH TARAPOREWALA

Irān and India have had very intimate connection since the dawn of history. Ages before the Arab conquest of Irān the people of that land had been coming and settling in this country for the purpose of trade and commerce, for political and other kindred reasons, and in some parts of Western India they were for a time the actual rulers. All that history is extremely obscure, what little we know is to be gathered from stray references in literature, in inscriptions and from coins. The late G. K. Narimān has told us about the information about the Iranians that might be gleaned from the *Bhaviṣyat Purāṇa*. Then again ancient ruins, like those at Taxila, show conclusively the existence of a large number of Iranian Zoroastrians in the Panjab about the beginning of the Christian era and in the centuries preceding. That period even of Iranian history, the so-called Arsacid period, is very obscure. There might be important relics and connecting links buried in northern Afghānistān and in the region of Balkh, and, as this is almost entirely unexplored, we will have to wait a long time to get any further in that direction.

This much is, however, absolutely certain that India did have a very considerable population of Iranian origin and Zoroastrian by religion, centuries before the Arab conquest of Irān. Careful ethnological research might reveal traces of these ancient communities. But this has not yet been begun. The characteristic of this land India—and of her Aryan culture has been the amazing power of absorbing every race and every culture that has been drawn here. These Iranian Zoroastrian settlers, themselves representing a branch of the ancient Aryan culture, were so close to the Aryan Hindus in their customs, habits and ideals that they were absorbed much easier than any of the others.

One band of Iranian Zoroastrians, however, has succeeded in keeping its individual existence to-day. This was due mainly to the fact that the place where they had settled—Sanjān—the bulk of the population did not consist of the aboriginal Bhils,

and Kolis. Islām had already come to India and had been firmly established in Sindh and Western India ; that was probably a second reason why the Pārsīs held themselves aloof.

The history of the Pārsīs of India from the time of their landing in Sanjān centres round the Sacred Fire of Irānshāh. This is but natural, since these people had been forced to leave their ancient land for the sake of their religion. This event took place according to Prof. S. H. Hoḍivālā in the year 936 A.D. (Friday, Śrāvaṇ Śud 9, 992 Vikrama Saṃvat is the exact date). This date has been fixed after very careful analysis by the Professor, and all other indirect evidence supports it completely.

It seems the Pārsīs had a settlement entirely their own at Sanjān and there is good reason to suppose that the name itself was taken from a well-known town in Irān which has been mentioned by Arab Geographers.

After settling down in Sanjān the Pārsīs seem busy in their own peaceful pursuits of agriculture and trade. Apparently they soon grew into a powerful community, peaceful on the whole, but drilled for war as well, because the times demanded it. Their power in war was fully demonstrated when Maḥmūd Begaḍā of Gujarāt sacked Sanjān. Hoḍivālā (whose chronology I accept) puts this event in the year 1465 A.D.

Some two centuries before that event the Pārsī colony at Sanjān sent forth offshoots towards the north into Gujarāt proper and at the date of the sack of Sanjān we find some very flourishing Pārsī centres, particularly round about Surat.

The history of a community which is leading the simple sequestered life of agriculturists is indeed difficult to unravel. Still there is mention of the Pārsīs in Sanskrit inscriptions, in various grants and later on in Persian *farmāns* of Muslim rulers. We also find stray references in local histories to some events which affected the Pārsīs as a whole, for instance, "the battle of Variāv" and dispute with the Jainas at Khambāt.

There are some names which are of outstanding merit. The first great name is that of Dastūr Nairyusang Dhaval. According to one opinion he came over with the emigrants. He and his pupils made the translations from Avesta and Pahlavī into Sanskrit. About the same time we get certain translations of and commentaries upon the sacred texts into Gujarātī. These form, indeed, some of the oldest genuine old Gujarātī prose texts we possess. The language being almost that of the age of Narasiṃha Mehtā and preserved just as it was written down.

There is another great name among Pārsīs in the 16th century and that is of Dastur Meherjī-Rānā of Navsārī. Slightly earlier was Chāngā Āsā Shāh whose name is deeply revered by the whole community. He it was who took the Irānshāh to Navsārī in 1491 A.D.

In the 17th century we get Dastūr Āzar Kaiwān in Behār. He and his pupils were thought worthy of a place in the famous *Dabistān-i-Mazāhib*.

After the advent of the Europeans in India references to the Pārsīs are frequent and from the beginning of the 19th century plentiful. Considerable material of this sort has been gathered in the *Bombay Gazetteer*, and the Parsis have themselves maintained during the last fifty years or so a fairly exhaustive Chronicle. It is the well known *Pārsī Prakāśa* of which the early volumes were compiled by the late Khān Bahādūr Bahmanjī Beherāmjī Patel. Since his death the work has been entrusted to Mr. R. B. Paymaster, B.A., LL.B., in whose hands volume VI is at present being compiled, after which, it is hoped, will soon bring the chronicle down to the present year (1939).

During the last fifty years individual Pārsī writers have worked assiduously over family chronicles and genealogies. A good number of such family histories have been published and a greater number are still to be published after being put into readable shape. Many families possess important ancient documents. Such, for instance, is a *farmān* granted by the Emperor Jehangir to an ancestor of Dādābhāi Navrōji.*

Three Parsi scholars have specially worked in this line. The late Dr. Sir J. J. Modi has written much about Pārsī History, and he has written a good monograph on the Dastur Meherjī Rānā and Akbar. He has also a small book on *A Few Events in the Early History of the Parsis in India*, and a good paper on *Dastur Bahman Kaikobad and the Kisseh-i Sanjān*.

The late Mr. Shapurji K. Hoḍivālā has prepared a good history of the Irānshāh. But his most valuable contributions to Pārsī History are the collection of references to the Pārsīs in Sanskrit documents contained in his *Parsis in Ancient India*.

The finest and most reliable work done in Pārsī History is undoubtedly the collection of papers by Prof. S. H. Hoḍivālā of Jūnāgaḍh, entitled *Studies in Parsi History*. This is thoroughly trustworthy and indispensable.

* This was published some years ago by Dr. J. Dordi of Navsārī.

For future work a few hints might be given. The local records, traditions etc. of the important Pārsī centres of Gujarāt should be carefully examined. These centres are Broach, Ankleśvar, Surat, Khambāt and Navsāri. There are existing documents and other historical material in the possession of Pārsī families and others in these towns which would give a good deal of information. It may be mentioned that the K. R. Cama Oriental Institute has been thinking about this for some time.

Old manuscripts preserved in public libraries or in private families would furnish a lot of material. Some years ago at the time of the late Dr. Sir J. J. Modī a collection of the colophons of the Avesta and Pahlavī manuscripts was made. But the work has to be done even more thoroughly and systematically. Prof. Hoḍivālā's book contains an excellent paper on the *Revāyats*, which should serve as a guiding post for this sort of work.

Scattered notices of Pārsīs would surely be found in archives of various Indian states. Even of well known figures like Khurshedjī Modī in the Peshwā's Darbār we have by no means full records.

One special difficulty for chronology in the early days lies in the accurate determination of the year in which an event occurred. Often the Pārsī day and month is mentioned with the Vikram Samvat year. This is the least difficulty. But when the Yazdezardī year is mentioned, it is necessary to know whether it dates from the accession of that King (631 A.D.) or is Armo Yazdezardī 20 i.e. dating from his death (651 A.D.). In fact the regular use of the Yazdezardī era is only about a century old, so for earlier document there is always some doubt and difficulty.

Bit by bit we get the work done. There are a few ardent scholars in this field, but by no means as many as one would wish. The labour would be only a labour of love. It is the history of a quiet peace-loving community who have mostly gone their own way, have tilled the land and earned their bread from the soil. They had their homely virtues and their homely joys and sorrows. But the Pārsīs furnish a most remarkable instance of survival and it would be worth while investigating the exact virtues which helped them to achieve this. The lesson is not for the Parsis alone but for all.

BIBLIOGRAPHY

For the history of the Pārsīs the following are among the main references. There have been a large number of articles

in various journals and in the daily papers, both English and Gujarātī (and occasionally in other Indian languages also), about special episodes of Pārsī History. For instance, in the year 1920 some Pārsī enthusiastic young men spent a few weeks making research round Bāhroṭ and their accounts were appearing almost daily in the Gujarātī Papers of Bombay during some months. Most of this is necessarily of an ephemeral interest, but it shows that the community is alive to the need of research into their history. There have been in addition numerous family histories published during the last two decades, which embody a great deal of very useful material. Then there are occasional lectures by people, who have got something interesting to impart ; and unless these have delivered before learned societies and have been printed as papers in their transactions we get only bare notices of them in the daily press. Of course all such have been scrupulously recorded by the indefatigable chronicler of the *Pārsī Prakāśa* together with the date of the paper in which the notice has appeared.

Pārsī Prakāśa. This is an indispensable work of reference. It was started by the late Khān Bahādūr Bahmanjī Behrāmjī Patel ; and since his death this chronicle has been entrusted to Mr. Rustam Barjorjī Paymaster, B.A., LL.B., who has been working very zealously over it. Vol. I (published 1878-1888) covers the history from the first arrival of the Pārsīs in India upto A.D. 1860. Vol. II covers the period from A.D. 1861-1880. Khān Bahādūr Patel died before this volume was completed, and it was seen through the press by his sister Miss Dīnbāi B. Patel. Then Mr. Paymaster was officially appointed to carry on the work. Vol. III carries on the chronicle from 1881-1900 ; Vol. IV from 1901-1910 ; Vol. V from 1911-1920 ; and Vol. VI carrying on from 1921, has up till now come upto 1926.

A few events in the Early History of the Pārsīs with their Dates, by the late Dr. Sir Jīvanjī Jamshedjī Modī (1905). This is a fine narrative giving all the main events upto A.D. 1765. There is a small sketch map added. The dates have been disputed by later scholars. But this little book was the first scholarly attempt to tackle Pārsī History.

Kisse-i-Sanjān, " being a narrative of the first arrival of the Pārsīs from Iran to India with the sacred fire more than a thousand years ago, composed in Persian verse by Bahman Kaikobad Sanjana in 1599 A.D., the Persian text with collation, translation into English by Lieut. E. B. Eastwick and the Editor and into Gujarati prose by Aspandiarjī Framjī Rabadi with a Gujarati Metrical Version, also the memorable 16 Sanskrit

Shlokas and their translation," edited by Rustam Barjorji Paymaster, B.A., LL.B. (1915).

Dastur Bahman Kaikobad and the Kisseh-i-Sanjan by the late Dr. Sir Jivanji Jamshedji Modī (1917). The authority of the *Qissa* was challenged by the late Mr. Jamshedji D. Nādirshāh B.A., L.C.E., a well-known and accurate Pārsī scholar, at the Third Zoroastrian Conference (1912) ; and a definite opposition was raised against the erection of the Sanjān Memorial column. This prompted a reply from Modī, that although the *Qissa* was exaggerated and in places even inaccurate, still it could on the whole be relied upon as a historical document.

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Pāk Irānshāh-ni Tavārīkh by the same author in Gujarātī (1927). It is a history of the Sacred Fire Irānshāh.

Studies in Pārsī History by Shāpūrshāh Hormasji Hoḍivālā, M.A., Principal and Professor of History, Bahā-ud-Din College, Jūnāgaḍh (1920). This is a collection of ten splendid essays and lectures on Pārsī History. The author is the most reliable and accurate among the historians of the Pārsis and rightly this book is now regarded as the best authority on the subjects therein treated.

✓
COINAGE OF GUJARAT
(*A Bibliographical Survey*)

By

R. G. GYANI

While tracing the history of the Numismatic study in India we must look back to the year 1824 when, in the transactions of the Royal Asiatic Society, Col. Todd published a Memoir on Greek, Parthian and Indian medals wherein, for the first time, he noticed the coins of Appolodotus and Menander. A find of coins of the Sultans of Bengal in 1841 brought the Muhammadan coins to the notice of scholars. In the latter half of the 19th century, Alexander Cunningham and James Princep were the giants of the Numismatic world. Hoards after hoards of ancient, mediæval and Muhammadan coins began to surrender themselves to these veterans who commented on them in their publications and displayed them to the best advantage of the contemporary and later students of these coins. They were succeeded by Vincent Smith, Lane Poole, Edward Thomas, E. J. Rapson, C. J. Rodgers, Elliot, Hoernle, Thurston and others who, through their publications, advanced this study and created a keen interest for coin collecting and Numismatic Research to a considerable extent. The catalogue of coins in the British Museum, London, the Indian Museum, Calcutta, the Central Museum, Lahore and the Government Museum, Madras along with a series of learned articles and notices of coins and coin types in the pages of the proceedings and journals of the Asiatic Society of Bengal and several other literary journals shed quite a flood of light on the different classes of Indian coins including those of Gujarat. This could form a strong foundation for the structure of further Numismatic Research.

In the beginning of our century there sprung up a class of Numismatists who were, not only keen collectors of coins and ardent students of Numismatics, but were also desirous of a co-ordination of the results of these stray researches and of systematizing the studies by affording a common platform for bringing all collectors and students of Indian Numismatics together. With this aim in view, about half a dozen scholars including two Gujaratis, viz. Rev. Dr. Geo. P. Taylor of Ahme-

dabad and Mr. Framji Thanawalla of Bombay met at Allahabad in 1910 with Sir John Stanley in the Chair and brought into being an association called "The Numismatic Society of India." This Society has for the last quarter of a century shed a flood of light through its members on the coinage of India. The results of their researches incorporated in the catalogues of coins in different Museums and notices of rare and unpublished coins in private collections in the journals of literary societies such as the Numismatic Supplement of the Asiatic Society of Bengal, the journal of the Bombay Branch, Royal Asiatic Society and such other publications. It is intended to refer the readers of this article to such publications and scholars as would be helpful for a study of coins that were current in Gujarat from the earliest times to the present century. As very few publications or articles of Numismatic research deal with Gujarat exclusively, we have to refer to the study of coinage of India in general, wherein Gujarat is included.

✓ A general survey of the coinage of Gujarat was for the first time attempted in a very interesting style by Rev. Dr. Geo. P. Taylor of Ahmedabad in two papers read before the members of the Literary Society of the Gujarat College. The first of these dealing with the Muhammadan coinage of Gujarat was published in the Gujarat College Magazine in January 1919. This was followed by a paper on the "Non-Muhammadan Coinage" of Gujarat published in the September issue of the Magazine in the same year. After about 13 years later, a paper on "The History of Coinage of Gujarat" was read by Mr. G. V. Acharya at the occasion of the Seventh All India Oriental Conference held at Baroda in 1932. This is published in the proceedings of the said Conference. Last of such attempts was made by the author of this article in a lecture delivered under the auspices of the Forbes Gujarati Sabha, Bombay, in July 1934, in Gujarati, wherein an attempt was made to discuss in brief the legends on these coins and also illustrate them. This lecture is published by the said Sabha. None of these publications, however can be termed as adequate for a student wishing to study the coinage of Gujarat in its entirety. An independent publication dealing with this subject in details on provincial lines still remains to be compiled.

The Earliest Indigenous Coinage.

Let us now turn to the coinage of Gujarat in the chronological order. A peep into the business transactions of the remotest past would show that the inhabitants of Gujarat, like

their contemporaries in other parts of India, carried on their trade by barter, i.e. by paying in kind. With the advancement of civilisation the inconvenience of promiscuous exchange was felt and the media of payment in the shape of cattle, of which cow formed the highest unit, were adopted, for smaller purchases, cowry shells, beads and corn were given in exchange. With the advent of gold, silver, copper and iron bars or globules of these metals were added as means of exchange. We find a mention of events in Puranas wherein the greatness of a man is expressed by the narration of the number of cows and horses possessed by him along with the amount of gold, silver and precious jewels. Later on they had pieces of gold, silver and copper cut according to weights and fixed their denominations. From Kautilya's *Arthashastra*, *Manu-Smriti*, *Yajnavalkya Smriti* and such other sources we can gather that Masha, Suvarna, Pala or Nishka and Dharana in gold, Mashaka, Dharna or Purna and Satamana in silver and the Karshapana (of 80 ratis) in copper were the coins of different weights and denominations. Some Royal symbols and several marks, of bankers or moneylenders through whose hand they passed during the period of their currency, are noticed to have been punched on them. They are therefore called the "Punch-marked Coins" by the Numismatists.

Hoardings of such coins are found in different parts of India and studied by various scholars. Mr. Theobald, in his article published in the Journal of the Asiatic Society of Bengal, Vol. LIX, Part I (1890 A.D.) enumerated more than 300 marks and tried to explain their meaning. Dr. Spooner, E. H. Walsh and J. Allan gave us a further insight into these coins. A thorough study of these coins in greater details is made by Mr. Durgaprasad. His illuminating thesis on these coins is published in No. XLV of the Numismatic supplement of the Journal of Asiatic Society of Bengal—an organ of the Numismatic Society of India. To have a deeper knowledge of these indigenous coinage of India reference must be made to the series of the five scholarly Carmichael lectures on "Ancient Indian Numismatics" delivered by Dr. D. R. Bhandarkar of the Calcutta University in 1921, wherein the professor has given the idea of the remotest antiquity of metrology and the original nomenclature of these coins drawn from the original sources in Sanskrit literature and Buddhist Archaeology. These lectures are published in a book form by the University of Calcutta. Gujarat has yielded comparatively little, so far as the Treasure Trove finds of these coins are concerned, and hence it is not yet settled as to which were the symbols and marks

of the Royalties and bankers of Gujarat just as is known to have been with other parts of India. These punch-marked coins were current from at least thousand years before Christ to the early centuries of the Christian era.

Indo-Greek Coins.

After the invasion of Alexander, the Greeks established their rule over Bactria and penetrated gradually over some part of India. Menander (155 to 130 B.C.) is known to have been the most powerful and famous of these rulers, and to have annexed Sindh, Malwa and Gujarat to his Empire. Coins of this King, bearing the legend in Greek and Kharoshtri characters along with his bust are found from various collections throughout Kathiawad and other parts of Gujarat. The deities and the legends on the reverse of the coins of this ruler and his successors show the influence of the religious views and literature of India on the royalty. This is discussed in some details by Edward Thomas. Alexander Cunningham, James Prinsep, Aurel Stein and Burges were the early contributors to the study of these coins. R. B. Whitehead has also brought many new varieties of these coins to the notice of the Numismatists. Capt. M. F. C. Martin's coins exhibited at Benares in 1929 and his descriptions of them deserve a careful attention. Articles Nos. 82, 173, 149, 274 and 296 of the Numismatic Supplement to the J. A. S. B. are noteworthy contributions for a study of these coins.

Western Kshatrapas.

Under the Kushan Emperors, the governors were sent out to various provinces. They bore the Persian title of Satraps. There were Satraps of Taxila and Mathura and similarly Satraps of Gujarat (of Western India). With the weakening of the central power in the north, these Satrapies or dependencies became independent. Nahapana, the Kshatrapa, established his independent Kingdom over Gujarat towards the end of the eighth decade of the first century A.D. Towards the end of his long reign in about 115 A.D. he was defeated by the Andhra king Goutamiputra Satakarni. His restamping of the Nahapana's coins with his own name bears a testimony to this fact. Another satrapy was established under Chastana over Rajputana and Malwa early in the 2nd century. After the death of Nahapana, the whole of the territory passed under him and he declared his independence from the Andhras. His dynasty is commonly known as the "West-

ern Kshatrapas". Had it not been for the coins of the 18 rulers of this dynasty it would have been impossible to trace the genealogy and chronology of these kings who ruled over Gujarat and Kathiawad till about the first decade of the 5th century A.D. In 1906 a hoard of about 15,000 coins of Nahapana was discovered in the Nasik District. 9270 coins, which could be saved from melting by the villagers, were submitted through the Bombay Branch of the Royal Asiatic Society to Rev. Dr. H. R. Scott of Surat whose report of examination of these coins appeared in the Journal of the Society for 1907. Later on Dr. Bhagwanlal Indraji assigned a large number of these coins to various rulers of this dynasty and good many of these coins from Gujarat found their way to the British Museum in London. Mr. E. J. Rapson's Catalogue of these coins published in 1908, still holds the field for the study of these coins. A hoard of 330 silver coins of these coins from the Central Provinces and of about 500 more from Junagadh were examined by Mr. G. V. Acharya. His report of these coins bringing out some novel features and new dates on these coins, will appear in the Jubilee Number of the Numismatic Supplement this year. From the discovery of some coins of Traikutaka and Bodhi rulers it appears that small states were established over some parts of Gujarat during the rule of later Kshatrapas. A study of these coins can be made from the aforesaid catalogue of the British Museum by Mr. Rapson.

The Gupta Empire.

During the illustrious rule of Chandragupta II (401-415 A.D.) the Kshatrapa dynasty was uprooted from Gujarat and in 409 A.D. Malwa and Gujarat (including Kathiawad) were annexed to the vast Gupta Empire. That the Gupta coinage of Gujarat was influenced by the preceding currency, is evidenced by the adoption of standard size and weight of the coins current in Gujarat ever since the introduction of the coinage of Menander. The coins of Kumar Gupta, Skandagupta of this workmanship can be studied from the Catalogue of Gupta coins in the British Museum by J. Allan and similar catalogues of these coins in the Museums of Calcutta and Lahore. Notices of unpublished coins of this dynasty have, from time to time, appeared in the various issues of the Numismatic Supplement of J. A. S. B. For a detailed study and Bibliography of these coins a reference may be made to p. 30

of the N. S. XLV where Mr. C. R. Singhal has given a complete list of the stray articles by different scholars.

The Valabhis.

During the reign of Narsimhagupta, Huns once more invaded India in 505 A.D. and succeeded in subduing Malwa. The Gupta Empire was in danger, the Emperor was a weakling. Taking advantage of these troubles the Provincial Governors declared themselves independent. Gujarat was not an exception to this. Senapati Bhattaraka of the Maitrak clan, the then Governor of Gujarat crowned himself as the king of Sourashtra and Gujarat with Valabhipur (the modern Vala, 18 miles west of Bhavnagar) in Kathiawad as his capital. The dynasty founded by Bhattaraka is known as Valabhi. From the large number of Epigraphical records and copper plate grants we know that during the rule of about 19 Valabhi rulers, Gujarat enjoyed great prosperity and happiness. Thanks to the powerful rule of the Valabhis that Gujarat was saved from the devastating raids of the ferocious Huns. As regards the coinage of these Valabhi rulers who ruled over Gujarat for more than 300 years, the Numismatists have neither been able to secure coins that could be assigned to different rulers of this dynasty, nor are they all agreed with respect to the reading of the typical Valabhi coins discovered in lots with very incomplete legend and crude workmanship. All the same, the notes on coins from Valabhi by Burges in Vol. I (p. 195) of the *Indian Antiquary* and Rev. J. Stevenson's remarks on Sourashtra coins found near Juniar in J. B. B. R. A. S. Vol. II, (p. 377) give us an idea of the preliminary attempts made in this direction. Sir A. Cunningham also made a similar attempt in his book on Ancient coins. The latest attempt to decipher the legends in Valabhi coins is that of Mr. G. V. Acharya published in the Jubilee number of the Numismatic Supplement of the R.A.S.B.

Rashtrakutas of Gujarat.

Representatives of the Rashtrakuta family had their sway over Southern Gujarat from 810 to 888 A.D. The land grants of these kings are also well known but the Numismatic record left by them is very disappointing. Only one variety with a Nandi and legend in Brahmi characters giving the name of Krishnaraj is known. Further research in the discovery and study of the coinage of the Valabhis and Rashtrakutas of Gujarat is a necessity.

Indo-Sasanian Coinage.

With the advent of the Huns in India, who had no culture of their own, a new type of coinage known as the Indo Sasanian was introduced in India. The Huns, as we know came from Central Asia passing through China, Turkistan and Persia and subduing the countries they traversed. After the establishment of the Kingdom when the necessity of issuing coins of their own was felt, they adopted the style of the Sasanian rulers of Persia. On these coins we find the bust of the King on one side and a fire altar, a symbol of the Zoroastrian divinity, with two worshippers on the other side. Toramana and Mihirakula's coins of this type suggest their origin though there is a marked degradation in the workmanship. Later on when this race of invaders was also assimilated with the Hindus of India, like the Greeks and Scythians, the Kathis and Rajput rulers of Gujarat completely absorbed them into Hindu culture, but no change seems to have been made in the coinage. The same imitations of the Sasanian coins went on degrading till at last the outline of the fire altar and attendants dwindled down to a pyramid of dots and the crude bust of the King with the extraordinarily long nose looking like a thick unshapely mace or like an ass's head. This probably gave it the name of Gadhiyas, so commonly found over the whole of Gujarat even now. Cunningham, Smith, Burn, Whitehead and others have contributed articles on Indo-Sasanian coins, but Dr. Bhagwanlal Indrajī's article on Gadhiya coins of Gujarat and Malwa in J. B. B. R. A. S. Vol. XII, p. 325, and Dr. G. P. Taylor's contribution on the same Gadhiyas of Gujarat in Numismatic Supplement No. 3 will give a clear idea of this type of coinage. It is surprising to note that we have no independent coinage of the illustrious Chavda, Chalukya and Waghela rulers of Gujarat. It appears that these ugly Gadhiyas alone in silver and copper formed the currency of Gujarat till the Muhammadan invasion of Gujarat.

Advent of Muslim Rule.

As we know, Gujarat was invaded for the first time in about 770 A.D. by the army of Amru Ibn Jamal, the ruler of Sindh which resulted in the annihilation of the Valabhi Kingdom in Gujarat. The whole of Gujarat and especially the Capital Vala was swept out of its wealth. The second attack (1024 A.D.) was that of Mahmud of Ghazni who broke the idol of Siva at Somanath and returned with immense booty

from Gujarat. A third attack by Muhammad Ghori in 1178 A.D. was followed by a severe defeat and retreat of Muslims by Mularaj II of Gujarat. After 20 years the fourth attack was made by Muslims under Qutbuddin Aibak on behalf of the Sultan of Delhi, but the invaders had to be content with what they got by way of loot and plunder of the city of Anhilwada Patan. The fifth attack under Ulughkhan—the general of Allauddin Khilji, brought the Muslim rule in Gujarat after the extinction of the Waghelas. Since then the coinage of the Sultans of Delhi came to be the coinage of Gujarat too. This explains the find of the coins of Allauddin and Mubarak Khilji, Muhammad Taghlaq and Firoz Shah in any number from the old collections of coins in Gujarat. During the rule of all these Sultans of Delhi, Gujarat was ruled by provincial governors. Timur's invasion gave an opportunity to several provincial governors to sever their connection from the Delhi Sultanate and declare their independence.

Sultanate of Gujarat.

The end of the 14th century saw the end of the provincial governors and the establishment of an independent Gujarat Kingdom under Zafar Khan—a born Gujarati. Under the rule of this dynasty for about 200 years Gujarat flourished a good deal and enjoyed complete prosperity. The coinage of these Sultans replaced the issues of Delhi and established a local coinage.

For a study of the coinage of the Sultans of Delhi and those of Gujarat, a reference can be made to the catalogue of coins in the Indian Museum, Calcutta, Vol. II, coins of the Pathan Sultans by E. Thomas and another Catalogue of the coins of the Muhammadan States of India in the British Museum, by S. L. Poole, besides a number of articles by various scholars like H. R. Nevill, Nelson Wright, Whitehead, Prof. S. H. Hodiwalla and Dr. Taylor in the pages of the Numismatic Supplements and Journals of the Bombay Branch of the Royal Asiatic Society. The last two Numismatists have done a good deal in advancing the study of the coinage of the Muhammadan period in Gujarat. Last of all, is the Catalogue of the coins of Sultans of Gujarat in the Prince of Wales Museum, Bombay, compiled by Mr. C. R. Singhal and edited by Mr. G. V. Acharya. This can be said to be a corpus of the coinage of Gujarat during the reign of the independent sultans.

The Mughal Rule.

The Mughal rule was established in India by Babar in 1526 but Gujarat enjoyed its independence till 1572 A.D. when Akbar defeated Muzaffar III, sent him to Agra as a prisoner and brought Gujarat under the Mughal Empire. The Mughal rule thus established, lasted till the eighteenth century when after the invasion of Nadir in 1739 over Delhi, the Marathas overran the whole of Gujarat and for about a century there was a tug of war for power between the provincial Mughal Governors, the newly established Nawabs of Cambay and Surat, the Gaekwads of Baroda and the Peshwas of Poona. None of them could, however, change the currency under the name of the contemporary Mughal Emperor, in spite of their supremacy over certain parts of Gujarat at certain periods of inter-regnum.

Though the Mughal rule was also a rule of Governors while the supreme monarch was at Delhi like the early Pathan sultans, the currency of Gujarat included a number of coins minted in Gujarat. Mughal mints were established at Ahmabad, Khambhat, Surat, Junagadh, etc. Coins of the Mughal Emperors right from Akbar I to Akbar II were issued from these mints. Coins issued by these rulers from other mints were also simultaneously current and hence a reference to the Catalogue of these coins in the Indian Museum, Calcutta (Vol. III) by Mr. H. N. Wight, in the Provincial Museum Lucknow by Mr. C. J. Brown, catalogue of coins in the Lahore Museum by Mr. Whitehead and those in the British Museum by Lane Poole would give an insight into the Mughal coinage. For a deeper study of the metrology and various denominations in gold, silver and copper coins of this period, one would do well to study the scholarly treatise "Historical studies in Mughal Numismatics" by Prof. S. H. Hodivala over and above various learned articles by him, Dr. Taylor and other scholars in the issues of the Numismatic Supplement and Journal of the Bombay Branch of the Royal Asiatic Society. Dr. Taylor has contributed special articles about the coins from the Mughal mints of Cambay, Surat and Junagadh which are also worth studying.

Post Mughal and Local Currencies.

During the reign of later Mughals when the Peshwas, Gaekwads, the so-called Mughal governors and the Nawab of Cambay were vying with each other, the prerogative of

issuing coins seems to have been transferred from one authority to the other. This was marked by various symbols such as a flag, an elephant goad, a sword, a dagger or so and stray letters such as श्री, ग and so on as mint marks. A systematic study of these mint marks on the Post-Mughal coins was made by Mr. A. Master, so far as the issues of Ahmabad are concerned, in the Numismatic Supplement No. XXII in 1914. A number of States sprang up throughout Gujarat and Kathiawad during this disturbed (later Mughal) period before the British obtained supreme power, such as Baroda, Bhavnagar, Cambay, Cutch, Chhota Udaipur, Janjira, Junagadh, Lunawada, Nawanagar, Radhanpur, Porbunder etc. Most of these States had already begun striking their coins long before the extinction of the Mughal power. They all struck coins in the name of the Mughal emperors with their mint names and dates accompanied by a distinguishing mint mark of their own. This continued till 1877 when after the Mutiny they replaced Mughal type of coinage with their own names and titles etc. stamped on the coins which marked their total independence of the central power at Delhi. While the States were striking coins, the East India Company also went ahead with their own currency in those parts of Gujarat which came under their sway. They also proceeded from the Mughal type of coinage to their own via the medium of Persian script and finally passed on to the modern currency from 1835 A.D.

This state of affairs went on till the end of the 19th century when the British coinage became current all over Gujarat and local mints were stopped, except in some States, which are allowed to issue only copper coins under certain restrictions. Thus we pass to the modern system of money of the 20th Century.

As regards the study of these coins a reference to the Catalogue of the Indian Museum, Vol. IV edited by J. Allen will give a general idea of the coins issued by the East India Company and the local States. The information contained in this volume can be supplemented by a number of articles on the coinage of different states contributed by Codrington, Taylor, and Gyani in the Numismatic Supplements and the Journal of the Bombay Branch of the Royal Asiatic Society.

A detailed list of the chief books and periodicals containing the literature about the coinage of Gujarat is given below.

PRE-MUHAMMADAN PERIOD

- ✓ 1 Dr. D. R. Bhandarkar : Charmichael lectures ; Ancient Indian Numismatics, 1921.
- 2 Mr. W. Theobald : Notes on some symbols found on punch-marked coins of Hindustan, J. A. S. B., 1890, p. 181.
- 3 Mr. Durga Prasad : Punch marked coins of silver N. S., XLV.
- ✓ 4 Mr. A. Cunningham : Coins of Ancient India, 1891.
- ✓ 5 Mr. A. Cunningham : Coins of Mediaeval India.
- 6 Mr. E. J. Rapson : Catalogue of the coins of the Andhra dynasty, the Western Kshatrapa, etc. in the British Museum, London.
- 7 Mr. P. Gardner : Catalogue of Greek and Scythic Kings of Bactria and India, in the British Museum, London.
- 8 Mr. R. B. Whitehead : Catalogue of the Punjab Museum, Lahore, Vol. I.
- 9 Mr. J. Allan : Catalogue of the coins of the Gupta dynasties in the British Museum, London.
- 10 Dr. Bhagwanlal Indraji : The Western Kshatrapa, J. R. A. S., 1890.
- 11 Dr. D. R. Bhandarkar : Kshatrapa coins from Sarvania A. S. R., 1913-14.
- 12 Mr. A. Cunningham : Coins of Indian Buddhist Satraps with Greek, J. A. S. B., Vol. XXIII.
- 13 Mr. K. N. Dikshit : Numismatic notes (Indo Greek and Western Kshatrapas), I. A., XLVII.
- ✓ 14 Mr. H. Newton : On the Sāh, Gupta, and other dynasties of Kathiawad and Gujarat, J. B. B. R. A. S., Vol. VII.
- 15 Mr. H. R. Scott : Description of a hoard of 1,200 coins of the Kshatrapa kings dated 203-376 A.D. found in Kathiawad, J. B. B. R. A. S., Vol. XX.
- 16 Mr. H. R. Scott : Nasik hoard of Nahapan's coins.
- ✓ 17 Mr. E. Thomas : On the Sāh kings of Sourashtra, J. R. A. S., XXI, p. 1-77.
- ✓ 18 Mr. J. Burges : Notes on coins from Valabhai, J. A. I., p. 195.
- 19 Mr. J. Burges : The legend on the Valabhi.
- 20 Rev. J. Stevenson : Some remarks of Sourashtra, coins found near Junir, B. B. R. A. S., Vol. II.
- ✓ 21 Mr. E. Thomas : Early coins of Western India, I. A., Col. VI, p. 174.

- ✓ 22 Dr. Bhagwanlal Indrajī : Gadhaiya coins of Gujarat and Malwa, J. B. B. R. A. S., Vol. XII, p. 325.

MUHAMMADAN PERIOD

- 23 Mr. S. L. Poole : Catalogue of the coins of Muhammadan States of India, 1854, in the British Museum, London.
- 24 Mr. E. Thomas : Chronicles of the Pathan Sultans of Delhi, 1884.
- 25 Mr. H. N. Wright : Catalogue of coins in the Indian Museum, Calcutta, Vol. II.
- ✓ 26 Rev. G. P. Taylor : Coins of the Gujarat Sultanat, J. B. B. R. A. S., Vol. XXI, 1904, p. 278.
- ✓ 27 Prof S. H. Hodivala : The unpublished coins of Gujarat Sultanate, J. B. B. R. A. S., Vol. II.
- ✓ 28 Mr. C. R. Singhal
&
Mr. G. V. Acharya : Catalogue of coins of Sultans of Gujarat in the Prince of Wales Museum, Bombay.
- 29 Mr. S. L. Poole : Catalogue of Mughal coins in the British Museum, London, 1892.
- 30 Mr. H. N. Wright : Catalogue of Mughal coins in the Indian Museum, Calcutta, Vol. III, 1908.
- 31 Mr. R. B. Whitehead : Catalogue of Mughal coins in the Punjab Museum, 1914.
- 32 Mr. R. B. Whitehead : The mint towns of the Mughal emperors, J. A. S. B., 1912.
- 33 Mr. C. J. Brown : Catalogue of Mughal coins in the Provincial Museum, Lucknow, 2 Vols., 1920.
- 34 Prof. S. H. Hodivala : "Historical studies in Mughal Numismatics" and a large number of his articles in the Numismatic Supplement.

BRITISH PERIOD

- 35 Mr. E. Thurston : History of the coinage of the East India Company, J. A. S. B., 1893, p. 52.
- 36 Mr. E. Thurston : Catalogue of the above coins in the Madras Museum, N. S., XXII.
- 37 Mr. A. Master : The Post Mughal coinage of Ahmadabad, J. A. S. B., 1914.
- 38 Mr. M. G. Ranade : Currency and mints under Maratha Rule, J. B. B. R. A. S., 1902.
- 39 Mr. G. P. Taylor : On the Baroda coins of the six Gaekwads, N. S. XVIII, J. A. S. B., 1912.

- 40 Mr. R. G. Gyani : Some unpublished coins of the
Gaekwads, N. S., XLIV ; J. A.
S. B., 1934.
- 41 Mr. A. Allan : Catalogue of coins in the Indian
Museum, Calcutta, Vol. IV. 1928.
- 42 Mr. C. R. Singhal : Bibliography of Indian coins, N.
S., XLI ; J. A. S. B., 1929.

These references should, in my opinion, be sufficient for an average student of the coinage of Gujarat from the earliest times to the modern age. For a detailed Bibliography of stray articles on further researches by various scholars and up-to-date information a reference is invited to the last mentioned Bibliography by Mr. C. R. Singhal, and later addenda to the same in further Numismatic Supplements of the Journal of the Asiatic Society of Bengal.

RESEARCH WORK IN BARODA STATE* ✓

By

Prof. K. H. KAMDAR

Records Department.

The Baroda Government started the Department of Records in 1891. The work of collating them was undertaken only after 1928, before which they had published 28 selections as chronicles of the Gaekwars from 1730 to 1773. During the last nine years the Raj Daftardar, Mr. C. V. Joshi, has published three volumes on the history of the Gaekwars, Vol. I from 1724 to 1768, Vol. II from 1769 to 1789, and Vol. III from 1789 to 1800. The fourth volume is under preparation. It will bring the Gaekwars' history upto 1819. The department published some time back the Persian papers in the Daftars in English.

The Raj Daftardar has succeeded in discovering the portraits of six rulers of Baroda.

Three scholars have up to now availed themselves of the records of the State for research work.

The Collection of Works of Art by the Baroda State.

The Director of Art in the State reports that he is at present engaged in studying the importance of Broach as a port in Greek and Roman times.

The museum and picture gallery contain rare specimens of Gujarat art.

Oriental Institute.

The Oriental Institute, like all other institutions in the State, owes its existence to the inspiration of His Highness the Maharaja Saheb who first expressed his desire to collate and co-ordinate results of Oriental scholarship and to initiate it in

* A brief note on the work done by His Highness the Maharaja Sayaji Rao Gaekwar's Government for the history, literature and culture of Gujarat, prepared by Prof. K. H. Kamdar, M.A., for the Gujarat Research Society, Bombay, under instructions from Mr. Manilal B. Nanavati when he was member of the State Executive Council.

his own state as early as in 1885 when he visited Patan, the mediæval capital of Gujarat. In pursuance of this idea, the late Mr. Manilal Nabhubai Dwivedi, a great scholar of Gujarat, prepared a report on the manuscripts in the seven Bhandaras of Patan. He published and translated, either alone or in collaboration with others, twenty-one books, the chief being ✓ प्रबंध चिंतामणि, कुमारपाळ चरित, भोज प्रबंध, तर्क भाषा, श्रम काव्य, etc.

His Highness the Maharaja deputed the late Dr. Harilal Harshad Dhruwa to the International Oriental Conference held at Stockholm in 1889 where he read a paper on सूर्य सिद्धांत.

Mr. C. D. Dalal was the next person to report on the ✓ manuscripts of the Jain Bhandaras. It is being printed now as part of the Introduction to the Patan Manuscripts Catalogue, Vol. I.

Dr. B. Bhattacharya started editing the Gaekwar Oriental ✓ Series in 1915. The State has published in all seventy-four volumes up to 1936, of which more than half are based on manuscripts preserved in the Bhandaras of Patan. As a good deal of this literature bears on the cultural history of Gujarat, it is described here.

1. नरनारायणानंद : It is a poem on the Puranic Story of ✓ Arjuna and Krishna on Mount Girnar, written by वस्तुपाळ, Minister to King वीरधवल of Dholka between Samvat 1277 and 1287, (A.D. 1221 and 1231). It is edited by the late Mr. C. D. Dalal and R. Ananta Krishna Shastri.

✓ 2. पार्थपराक्रम It is a drama describing Arjuna's recovery of the cows of Viratadesha, written by प्रल्हादनदेव, the Founder of Palanpur, and younger brother of the Paramar King of चंद्रावती, a feudatory to the Solankis of Gujarat. It was composed in A.D. 1164. It was edited by the late Mr. C. D. Dalal in 1917.

✓ 3. वसंत विलास : It is a महाकाव्य describing the life of वस्तुपाळ and the history of Gujarat, written by बालचंद्रसूरी of मोढेरा for the son of वस्तुपाळ in A.D. 1240 (after the death of the great minister). It was edited in 1917 by the late Mr. C. D. Dalal.

✓ 4. मोहपराजय : This is an allegorical drama written by यशः पाळ, an officer in the employ of King अजयपाल of Gujarat, who reigned from 1229 to 1232. The work was edited by मुनि चतुरविजयजी with introduction and appendices by the late Mr. C. D. Dalal in 1918. It relates the conversion of Kumara Pala to Jainism.

✓ 5. हम्मीरमदमर्दनः This is a drama written by जयसिंहजीसूरी, pupil of वीरसूरी, of the temple of सुनिसुव्रत (तीर्थकर) at Broach, about A.D. 1220 in eulogy of वस्तुपाल, तेजपाल and their King वीरधवल. It was edited by the late Mr. C. D. Dalal.

✓ 6. उदय सुंदरी कथा : This is a चंपू a romance, in prose and poetry, written by Soddhala under the patronage of the three rulers of the Konkan, (about A.D. 1026 and 1050), छितराज, नागार्जुन and मुम्सुनीराज. It was edited by the late Mr. C. D. Dalal and Pandit Embar Krishnamachariyar, 1920.

✓ 7. प्राचीन गुर्जर काव्यसंग्रह : This is a collection of old poetical compositions in Gujarati from the twelfth to the fifteenth century. It was edited by the late Mr. C. D. Dalal.

✓ 8. कुमारपाल प्रतियोगः This is the biography of King Kummārapāla in Prakrit by सोमप्रभुसूरी who wrote it in A.D. 1195. It was edited by Jina Vijayaji in 1920.

✓ 9. लेखपद्धति : This is a collection of samples of private and state documents dating from the 8th to the 15th century. It is edited by the late Mr. C. D. Dalal and Mr. G. K. Shrigondekar in 1925.

10. भविष्यत् कथा or पंचमीकहा: This is a romance in Apabhraṃśa written by धनपाल. It was edited by the late Mr. C. D. Dalal and the late Dr. P. D. Gune, 1923.

✓ 11. A descriptive catalogue of important palm-leaf and paper manuscripts in the Bhandaras of Jessolmere. It was compiled by the late Mr. C. D. Dalal and was edited by Pandit L. B. Gandhi, 1923.

12. समरांगणः A work on Architecture written by King भोज. It is edited by Mr. M. T. Ganapati Shastri.

13. नलविलासः It is a drama written by रामचंद्रसूरी, pupil of the famous हेमचंद्रसूरी, about the life of Nala and Damayanti. It is edited by Messrs. G. K. Shrigondekar and L. B. Gandhi in 1926.

✓ 14. (1) *Mirat-e-Ahmedi*. A history and an account of Gujarat in the 18th century by Ali Muhammad Khan, the last Dewan of the Mogul Viceroy in Gujarat. It is edited in Persian by Prof. Sayed Nawab Ali, M.A., 1926-28.

(2) *Ditto* : *Supplement*. Translated and edited by Mr. Seddon and Prof. S. Nawab Ali, 1928-29.

✓ 15. अपभ्रंशकाव्यत्रयी. This is a collection of three works by जिनदत्तसूरी. It is edited in Sanskrit with elaborate commentaries by the Jain Pandit, Mr. Lalchandra Bhagvandas Gandhi.

- ✓ 16. त्रिषष्टिशलाका पुरुष चरितः Lives of the sixty-three greatest Jains (Tirthankaras, Vasudevas, Prati Vasudevas, Baladevas, etc.), written by the famous Jain monk हेमचंद्रसूरी. Part of it is translated with notes, etc. by Dr. Helan M. Johnson.
- ✓ 17. पद्यानंद महाकाव्यः A life of ऋषभदेव written by अमरचंद्र कवि written in the 13th century. It was edited by Mr. H. R. Kapadia in 1932.
- ✓ 18. A *descriptive Catalogue* of the Jain Bhandaras at Patan edited on the basis of the notes of Mr. Dalal by Pandit L. B. Gandhi.
19. Influence of Portuguese Vocables on Asiatic Languages, translated by the late Prof. A. X. Soares.
- ✓ 20. अलंकार महोदधि This famous work on poetics in Sanskrit was composed by नरेंद्रप्रभसूरी on the request of वस्तुपालमंत्री in 1226 A.D. It is edited by Mr. L. B. Gandhi, the Jain Pandit.
- ✓ 21. गुर्जर रासावली : A collection of Gujarati Rāsas. (under preparation) by Mr. Manjula R. Mazmundar.
22. माधवानल कामकुंडला This is edited by Mr. Manjula R. Mazmundar. It is in the press.

The following literature was published long ago :—

- ✓ 1. BURGESS and COUSINS : *Archæological Survey of North Gujarat* (1903).
2. BURGESS : *Antiquities of the Fort of Dabhoi* (1889).
3. C. T. MODI : किल्ला डमोइना पुरातन कामो
4. *Memoirs of the Archaeological Department* (1935), No. I.
5. *Gujarati Translations of Census Reports*.
6. सर्व संग्रह for the State (1920).
- ✓ 7. *Baroda State Gazetteer*, 2 Volumes (1923) (Revised By Rao Bahadur G. H. DESAI and the late Mr. A. B. CLARKE).
8. *Statistical Atlas of the Baroda State* by Rao Bahadur G. H. DESAI (1911).
9. *Glossary of Castes and Tribes* by R. B. G. H. DESAI.
10. पटेल जातिना रिवाजोनुं एकीकरण.
11. नवसारी प्रांतनी काळी परज.
12. *Study of Joint Family System* by N. C. DESAI, M.A., (1936).
- ⑬ *Studies in the Economics of Gujarat*, by Dr. J. M. MEHTA.

14. ✓ *Translations of the Economic Surveys of some villages in the State*, from Gujarati into English, by Prof. K. H. KAMDAR (1930)
15. અર્થશાસ્ત્ર by Prof. K. H. KAMDAR, M.A.
16. રાજ્યશાસ્ત્ર, by Dr. J. M. MEHTA, translated into Gujarati by Prof. K. H. KAMDAR.

Publications in the સયાજી જ્ઞાનમંજૂષા and સયાજી બાલ સાહિત્યમાલા which run into several books.

સયાજી વૈજ્ઞાનિક કોષ. (1923). (Dictionary of Scientific Terms).

સયાજી શાસન શબ્દ કલ્પતરુ (Dictionary of Administrative and Legal Terms, 1932).

Thirty-five volumes of પ્રાચીન કાવ્યમાલા *with notes by Mr. Chhotalal Narbheram Bhatt, 1890-1895 at a cost of Rs. 16,000. The series published the works of poets mostly from the Baroda State, some of whom were women. In the series are included the three dramas of Premanand about which there is great controversy in Gujarat. The volumes were reported by Mr. Chhaganlal T. Modi on the occasion of the fourth ગુજરાતી સાહિત્ય પરિષદ, held at Baroda in 1912.*

Books on Music were published by Ustad Maula Bux under H. H. the Maharaja's patronage.

અભિનવ દર્પણ a work on Acting, written by નંદીકેશ્વર was published with a Marathi translation.

બાલચિત્ર પોથી a work of Drawing and Painting was prepared under the guidance of the late Prof. T. K. Gajjar.

Archæological Department.

The Archæological Department under the direction of R. B. Hiranand Shastri is at present engaged in conserving and repairing old monuments, exploring new ones, and listing them. R. B. Hiranand Shastri has unearthed important finds at Amreli and Mūl Dwarka in Kathiawar, at Patan in North Gujarat, and at Kamrej in the Navsari district. Some of them are very important, one of them is an evidence of Andhra rule in Kathiawar.

Two Memoirs are published by the Director : They are (i) Indian Pictorial Art in book illustrations, (ii) The Rock Inscriptions of Ashoka, Rudra Dāman and Samudra Gupta, near the Girnar Hills at Junagadh.

The Director has a work on Jaina Iconography under preparation.

The following publications may be mentioned in addition to those already referred to .

1. *Report on Land Mortgage Bank for Baroda* prepared under the direction of Mr. MANILAL B. NANAVATI who was President of the Committee (1919).
2. *Baroda State Economic Inquiry Report*, written by Mr. MANILAL B. NANAVATI (1919).
3. *Census Reports*, 1911, 1921, 1931.
4. *Baroda State Banking Inquiry Committee Report*, written by Prof K. H. KAMDAR, M.A.
5. *Economic Surveys of certain villages*, prepared under the direction of the Development Board of the State and edited by a committee composed of the Sar Suba, the Registrar of Co-operative Societies, Dr. J. M. MEHTA and Prof. K. H. KAMDAR, with Dr. J. M. MEHTA as the chief editor.

Periodicals.

The Baroda Government publish a Quarterly *Blue Book* which discusses administrative, educational, economic and rural questions. A monthly magazine "*Grama Jivana*" is issued in Gujarati under the joint auspices of the Development Departments of the State and the Co-operative Institute. It discusses questions of rural uplift. The editing is in charge of Prof. K. H. Kamdar, M.A. The Gujarati Sahitya Sabha, a quarterly named साहित्यकार and the Marathi Literary Society, सहविचारिणी सभा, publish a quarterly called सहविचार. The monthly journal पुस्तकालय discusses libraries.

Other Activities.

There are several non-official activities in the State whose object is the promotion of culture in Gujarat. They need not be enumerated here. Several persons in their private capacity as students of history, sociology, culture and civilization are engaged in academic pursuits. Some good literature is published by them on Gujarat and India from time to time.

THE SOCIAL AND ECONOMIC STRUCTURE OF GREATER GUJARAT

By

C. N. VAKIL & M. H. PATEL

In order to get a general idea of the social and economic structure of the people living in Gujarat, Kathiawar and Cutch, it is proposed to compile a series of statistical tables which in the aggregate will bring together the necessary information. These tables will be based mainly on the census volumes of 1931 and other relevant sources. On account of the fact that the census for British Gujarat, for the Baroda State and for the Kathiawar States is organised separately and published in different volumes, a co-ordinated idea of the Gujarati-speaking peoples inhabiting these areas cannot be easily obtained. Whereas anyone wanting to have a detailed idea on any specific problem will have to wade through these volumes and compile his own tables, it would serve a general purpose if a few leading features are brought together in a convenient form.

The general features relating to the people of Gujarat have been brought together in the four tables published in this issue. Appendix A gives a table relating to the area and population of Greater Gujarat ; Appendix B gives a table relating to the distribution of Gujarati-speaking population in the Bombay Presidency including the States ; Appendix C gives a table of Gujarati-speaking population in the country as a whole. Besides this those persons speaking an allied language have also been shown in a separate column. Appendix D gives information regarding the division of population in rural and urban areas ; according to sex, etc.

Brief notes indicating the general significance of these tables have been given below which enable the reader to follow the tables. These notes are in no sense exhaustive because it is possible to give a fuller interpretation to these features from different points of view. As the object of compiling these tables is more informative than otherwise the question of detailed interpretation has been left for separate fuller studies.

Similar tables on other aspects of the social and economic life of the people of Greater Gujarat will be published in the future numbers of this journal.

NOTES ON TABLES

Appendix A. Area and Population of Greater Gujarat

Greater Gujarat bounded by ties of common language and culture is under different political jurisdictions. Besides the four British Districts of the Bombay Presidency, which form but a small part of the total area bearing common affinities of language and culture, and the areas administered by the Government of India through the Gujarat States Agency and the Western India States Agency, there are large areas administered by the Indian Princes. Twenty-nine of the Ruling Chiefs have direct relationship with the Government of India. Of the smaller chiefs of varying importance 107 are under the control of the Political Agent, Western India States Agency ; and 15 are under the Gujarat States Agency. Besides, we have smaller estates, more or less directly administered by the Agencies. 162 of these are under the Western India States Agency and 54 are in the Gujarat States Agency. Details of these will be found in Appendix A.

Appendix A indicates the multiplicity of administrative units constituting cultural and linguistic Gujarat. On the one hand it presents difficulties to an investigator in collecting requisite materials and on the other, even if one succeeds, it is impracticable to generalise for the whole area, the component parts being under diverse conditions. Out of the total area of more than 64,000 sq. miles with a population of more than 113 lakhs, 10,223 sq. miles of territory with a population of 32 lakhs live in the four British Districts : and 53,905 sq. miles of area with a population of 81 lakhs are under the jurisdiction of Ruling Chiefs. Thus the area under the States is five times that under British Administration ; whereas the population under them is two and a half times.

It may be interesting to compare the area, population and density of Greater Gujarat¹ with those of the following states and provinces.

1. It may be made clear that the phrase 'Greater Gujarat' used in this article for the purposes of the tables includes the Four British Districts. Gujarat States and Agencies, Baroda State and Western India States Agency comprising Kathiawar and Cutch.

<i>Divisions.</i>					<i>Area</i>	<i>Popula- tion</i>	<i>Density</i>
					(in thousands)		
British Districts of Gujarat	..	..	..	..	10	3,224	316
Baroda	..	..	..	..	8	2,443	298
Greater Gujarat	..	..	..	..	64	11,377	177
Hyderabad State	..	..	..	..	83	14,436	174
Mysore State	..	..	..	..	29.5	6,557	224
The Punjab	..	..	..	..	99	23,000	210
Bengal	..	..	..	..	77	50,200	616

It may be noted that the density of Greater Gujarat is low. The British Districts and Baroda have twice as much density as Greater Gujarat, but the figure is adversely affected due to the inclusion of Cutch and Kathiawar where the population is scarce. There is a large desert area in Cutch and as such its density is as low as 62 per sq. mile while that of Kathiawar is 113.

The pressure of population in the British Districts of Gujarat is thus much greater than in the Indian States. This situation will account for the existence of many economic and social problems in different parts of Greater Gujarat which require fuller investigation.

Appendices B and C. Distribution of the Gujarati-speaking Population.

The Tables in Appendices B and C illustrate in an interesting manner the spirit of adventure and the power of colonisation of the Gujarati speaking people mainly in the pursuit of commerce and trade. They have carried their culture and traditions to different parts of India as indicated by the same figures.

A column has been added in table C showing the number of the Bhili-speaking people on the ground that the Bhili language is very similar to Gujarati. Besides the Bhils in Gujarat proper, there are large groups of Bhils on the northern and the eastern borders of Gujarat, viz., Rajputana, Central India and the Central Provinces. The Bhili language spoken in these areas is mixed with words of the local languages, but there is still a large admixture of Gujarati words and the influence of Gujarati grammar is predominant. It is quite reasonable to include the 21.89 lakhs of Bhils as subject to Gujarati influence and culture in the widest sense.

Bombay City which owes its prosperity and industrial position in no small measure to the Gujarati speaking people claims to be their largest colony. The spread of culture from

the country to the City is almost continuous. The intervening district of Thana has no less than 72,000 persons speaking this language. The two Khandesh districts also have in their midst no less than 62,000 Gujaratis mostly engaged in industrial and commercial pursuits.

The sandy deserts of the north have proved no obstacles to the spirit of this colonising community. 33,000 of the people have migrated to the Thar and Parker districts, 23,000 to the Karachi district and 18,000 to the Hyderabad district, in the Province of Sind. Besides these migrations of the Gujarati population in the Bombay Presidency proper, large colonies of this population flourish in other parts of India as indicated in Appendix C.

It is further evident that no less than 4 lakhs of Gujarati-speaking persons are scattered in the different parts of India. About one lakh of them have migrated to the Madras Presidency in the South, and one lakh to the neighbouring Central Provinces and the states of Central India. 17,000 enterprising Gujaratis have made Burma their home, a place which is far away from the mother country and which no longer forms a part of British India.

Appendix D. Classification of the Population—urban and rural, male and female, etc.

The table in Appendix D gives important figures regarding the distribution of population according to sex, rural and urban areas or towns and villages, area, density etc. The figures are intended to present a picture of the country under survey in its fundamental background rather than for a critical study and elaborate generalisation. Even then a few broad generalisations which easily strike a reader will not be out of place.

The following table indicates the densities in the different divisions of Gujarat.

	1921	1931
British Districts of Gujarat	287	316
Baroda	260	298
Western India States Agency	100	113
Gujarat States	140	165
Greater Gujarat	158	177

The general tendency of the decade has been an increasing pressure of population on the soil as indicated by the density, and the different parts of Gujarat are no exception to the same. The density of population is the highest in the British Districts of Gujarat. This is due to richer soil capable of supporting larger population and greater industrialisation. The lowest den-

sity is of the Western India States and Agencies which is due to scanty rainfall and the inclusion of large desert area of Cutch. Baroda State has a lower density than the British Districts because its territories spread out in the different parts of Gujarat, territory round about Gujarat having a density of 330 against 163 of the territory in Kathiawar.

The following table will give an idea of the urban and rural distribution of population :—

	Urban	Rural	Percentage of urban population to total
	(in thousands)		
British Districts of Gujarat	810	2,414	25
Gujarat States & Agencies	140	1,571	8.2
Baroda State	523	1,920	21.4
Western India States Agency	889	3,115	22
Greater Gujarat : Total	2,357	9,020	20
Bombay Presidency	5,509	20,838	23
India	39,985	3,13,852	11

One point to be noted is that urbanisation does not necessarily mean industrialisation. In most of the cases the distributing centres grow into towns. This will explain the fact that although the ratio of urbanisation is nearly the same in Bombay Presidency, Western India States Agency and Baroda, the industrialisation will not be the same as can be judged from the number of factories and industrial labourers.

The British districts with a big industrial centre like Ahmedabad have naturally the highest ratio of urban population to total. It compares very favourably with that of the Bombay Presidency. It is far ahead of the All-India figure. The position of Greater Gujarat is worsened because of the inclusion of Gujarat States and Agency, which have a low rate of urbanisation. This is due to the fact that in the States large areas are covered by forests as in the Dangs and Dharampur.

The following table indicates another important aspect of population, namely, the sex ratio.

			Males	Females	Females per 1,000 males
..					
			(in thousands)		
British Districts of Gujarat	..	..	1,683	1,541	916
Gujarat States and Agency	..	..	882	829	940
Baroda State	..	..	1,258	1,185	942
W. I. States Agency	..	..	2,026	1,973	974
Greater Gujarat : Total	..	..	5,849	5,528	942
Bombay Presidency	..	..	13,792	12,555	909
India	..	..	181,828	171,009	940
England	..	..	...	..	1,087
Scotland	..	..	...	..	1,082

Among the divisions of Gujarat, Western India States Agency has the best ratio which compares very favourably with that of India or Bombay Presidency. Baroda State and Gujarat states have nearly the same ratio as India. But the situation in the British Districts of Gujarat and the Bombay Presidency is far from satisfactory. The ratio of females in Gujarat and Kathiawar vary widely. It is a problem to explain why there is such a wide variation between the regions where the social and other conditions are more or less the same.

The social problems arising out of the sex ratio are many, and there is a large scope for further investigation in this field.

APPENDIX A.

Area and Population of Greater Gujarat.

Name of the place	Area in sq. miles	Population in 1931 (in thousands)	Average annual revenue (in thousands of rupees)	Average annual expendi- ture (in thou- sands of rupees)
I. British Districts.				
1. Ahmedabad District ...	3846	1,000	}	Figures not available
2. Broach & Panch Mahals	3106	789		
3. Kaira ...	1620	742		
4. Surat ...	1651	693		
Total ...	10,223	3224		
II. Agency administered area in				
5. Eastern Kathiawar Agency	1408.835	165	}	
6. Western Kathiawar Agency	2892.3	64		
7. Sabarkantha Agency ...	2022.5	184		
8. Gujarat states Agency* ...	1319	93		
Total ...	7642.635	506		
9. Amala ...	119.77	6	4	4
10. Bajana ...	183.12	13	230	358
11. Balasinor ...	189	53	273	273
12. Bansda ...	215	49	738	679
13. Baria ...	813	159	1,174	1,019
14. Baroda ...	8,164	2,443	24,239	21,260
15. Bhavnagar ...	2,961	500	19,190	14,279
16. Bilkha ...	107	20	375	325
17. Cambay ...	392	88	1,357	1,443
18. Chotila ...	108	9	70	60
19. Chhota Udaipur	890.34	145	1,120	1,341
20. Cutch ...	8,249.5	514	2,796	3,222
21. Dasada ...	129.76	10	194	147
22. Dharampur ...	704	112	884	907
23. Dhrangadhra	1,167	89	2,300	2,000
24. Dhrol ...	282.7	28	250	217
25. Gad-Barriad	128	11	52	52
26. Gadvi ...	170.82	8	6	6
27. Gondal ...	1,024	206	5,000	4,600
28. Idar ...	1,669	263	2,100	2,050
29. Jambhughoda	143	11	131	129
30. Jasdan ...	296	34	421	410
31. Jhinjhuvada ...	164.6	12	162	76
32. Junagadh ...	3,337	545	8,425	6,394
33. Kadawa ...	132	18	101	105
34. Lakhtar (Thana)	247.43	24	271	261
35. Limbdi ...	343.96	41	900	900
36. Lunavada ...	388	95	560	538
37. Malia ...	103	12	170	1,150

* NOTE: The area is composed of Dangs, Sankheda Mewas and Pandu Mewas. The figures for the first two were obtained from the main report but figures for Pandu Mewas were not available, hence, it is not included.

Name of the place		Area in sq. miles	Population in 1931 (in thousands)	Average annual revenue (in thousands of rupees)	Average annual expendi- ture (in thou. sands of rupees)
38.	Monavdar ...	101	29	565	692
39.	Morvi ...	822	113	5,445	5,218
40.	Muli ...	133.2	17	296	293
41.	Nawanagar ...	3,791	402	9,519	9,978
42.	Palitana ...	300	62	799	839
43.	Patdi ...	165	17	339	294
44.	Pithadia ...	102	8	240	230
45.	Porbundar ...	642.25	116	2,000	2,000
46.	Radhanpur ...	1,150	71	633	631
47.	Rajkot ...	282.4	76	1,067	1,089
48.	Rajpipla ...	1,517.50	206	2,516	2,540
49.	Sayla ...	222	15	156	184
50.	Sudamda } Dhandalpur }	135	8	40	35
51.	Suigam ...	220	9	18	18
52.	Thana Deoli...	117.32	16	300	300
53.	Tharad ...	1,260.5	54	106	82
54.	Vala ...	190.3	14	199	198
55.	Vijayanagar ...	135	8	94	89
56.	Wadhwan ...	242.6	43	575	522
57.	Wankaner ...	417	44	735	729
58.	Warohi ...	120	3	32	25
59.	Wao ...	759	21	55	55
60.	Small states or estates below 100 miles each in Western India States Agency (Total No. 239)...	3706.33	554	6,008	5,178
61.	Small states or estates below 100 sq., miles each in Gujarat States Agency Area (Total No. 64) ...	636.72	142	1,411	1,461
Grand Total ...		67,855.755	11287	...	...

NOTE:—The figures in this table for the five British districts are taken from the Census Reports 1931, while those for Agency areas and the Indian States are collected from the Government of India publication. "Memoranda on the Indian States, 1937", published by Manager of Publication Delhi. The grand totals at the foot, as to the area and population do not agree with those given in the article where the figures are taken from the Census Reports.

APPENDIX B.

Distribution of Gujarati-speaking Population in the Bombay Presidency including the States.

District or State							Number of Gujarati speaking persons (in thousands.)
I.	BRITISH DISTRICTS	..	..	..	..	..	3,423
	(a) <i>Bombay City</i>	..	..	..	..	..	242
	(b) <i>Northern Division</i>	..	..	..	..	..	2,967
	1. Ahmedabad	..	..	..	..	..	820
	2. Broach	..	..	..	..	..	289
	3. Kaira	..	..	..	..	..	702
	4. Panch Mahals	..	..	..	..	..	434
	5. Surat	..	..	..	..	..	650
	6. Thana	..	..	..	..	..	72
	(c) <i>Central Division</i>	..	..	..	..	..	121
	1. Ahmednagar	..	..	..	..	..	4
	2. Khandesh (East)	..	..	..	..	..	20
	3. Khandesh (West)	..	..	..	..	..	42
	4. Nasik	..	..	..	..	..	7
	5. Poona	..	..	..	..	..	15
	6. Satara	..	..	..	..	..	4
	7. Sholapur	..	..	..	..	..	5
	8. Bombay Suburban Dist.	..	..	..	..	..	24
	(d) <i>Southern Division</i>	..	..	..	..	..	14
	1. Belgaum	..	..	..	..	..	1
	2. Bijapur	..	..	..	..	..	2
	3. Dharwar	..	..	..	..	..	6
	4. Kolaba	..	..	..	..	..	4
	5. Ratnagiri	..	..	..	..	..	1
	(e) <i>Sind</i>	..	..	..	..	..	79
	1. Hyderabad	..	..	..	..	..	18
	2. Karachi	..	..	..	..	..	23
	3. Larkana	..	..	..	..	..	1
	4. Nawabshah	..	..	..	..	..	3
	5. Sukkur	..	..	..	..	..	1
	6. Thar and Parkar	..	..	..	..	..	33
II.	BOMBAY STATES AND AGENCIES	..	..	..	..	..	1,453
	(a) <i>Cambay</i>	..	..	..	..	..	81
	(b) <i>Mahikantha Agency</i>	..	..	..	..	..	460
	1. Idar	..	..	..	..	..	216
	2. Rest of the Agency	..	..	..	..	..	244
	(c) <i>Rewakantha Agency</i>	..	..	..	..	..	858
	1. Rajpipla	..	..	..	..	..	182

2.	Chota Udepur	..	..	..	..	..	142
3.	Devgad Baria	..	..	..	..	..	159
4.	Lunawada	..	..	..	..	..	95
5.	Balasinor	..	..	..	..	..	52
6.	Santh	..	..	..	..	..	83
7.	Sankheda Mewas	..	..	..	..	..	58
8.	Rest of the Agency	..	..	..	..	..	87
	Jawhar	..	..	..	..	..	1
	Janjira	..	..	..	..	..	1
	Aundh	..	..	..	..	..	1
	Phaltan	..	..	..	..	..	1
	Kolhapur	..	..	..	..	..	2
	Sangli	..	..	..	..	..	1
	Bansda	..	..	..	..	..	21
	Dharampur	..	..	..	..	..	4
	Sachin	..	..	..	..	..	21
	Dangs	..	..	..	..	..	1
III.	BARODA STATE	..	..	..	..	..	2,120
1.	Baroda City	..	..	..	..	..	64
2.	Amreli Division	..	..	..	..	..	166
3.	Baroda Division	..	..	..	..	..	650
4.	Mehsana Division	..	..	..	..	..	981
5.	Navsari Division	..	..	..	..	..	243
6.	Okhamandal	..	..	..	..	..	16
IV.	WESTERN INDIA STATES AGENCY	..	..	..	..	..	3,484
(a)	<i>Seventeenth Salute States</i>	..	..	..	..	..	2,655
1.	Cutch	..	..	..	..	..	214
2.	Junagadh	..	..	..	..	..	473
3.	Nawanagar	..	..	..	..	..	384
4.	Bhavanagar	..	..	..	..	..	494
5.	Porbandar	..	..	..	..	..	110
6.	Drangadhra	..	..	..	..	..	88
7.	Palanpur	..	..	..	..	..	245
8.	Radhanpur	..	..	..	..	..	68
9.	Morvi	..	..	..	..	..	110
10.	Gondal	..	..	..	..	..	171
11.	Jafrabad	..	..	..	..	..	11
12.	Wankaner	..	..	..	..	..	43
13.	Palitana	..	..	..	..	..	62
14.	Dhrol	..	..	..	..	..	27
15.	Limbdi	..	..	..	..	..	40
16.	Rajkot	..	..	..	..	..	73
17.	Wadhwan	..	..	..	..	..	42
(b)	<i>Eastern Kathiawar Agency</i>	..	..	..	..	..	279
1.	Lakhtar	24
2.	Sayla	15
3.	Chuda	13
4.	Vala	14
5.	Lathi	9
6.	Muli	17
7.	Bajana	13
8.	Patdi	3

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9.	Wadhwan Civil Station	12
10.	Rest of the Agency	159
(c)	<i>Western Kathiawar Agency</i>	353
1.	Jasdan	..	..	..	..	34
2.	Manavadar	..	..	..	..	19
3.	Thana Devli	..	..	..	..	16
4.	Wadia	..	..	..	..	14
5.	Virpur	..	..	..	..	8
6.	Malia	..	..	..	..	11
7.	Kotada Sanghavi	..	..	..	..	9
8.	D. S. Vala Muller Surang of Jetpur	..	..	..	..	8
9.	D. S. Vala Rawat Ram of Jetpur	..	..	..	..	16
10.	Khairasra	..	..	..	..	5
11.	Rajkot Civil Station	..	..	..	..	9
12.	Rest of the Agency	..	..	..	..	204
(d)	<i>Banaskantha Agency</i>	..	..	..	..	197
1.	Tharad	..	..	..	..	51
2.	Wao	..	..	..	..	21
3.	Varahi	..	..	..	..	3
4.	Rest of Agency	..	..	..	..	122

Grand Total .. 10,500

APPENDIX C.—*Distribution of persons speaking Gujarati
and the allied languages in 1931.*

INDIA	GUJARATI			BHILI		
	Persons	Males	Females	Persons	Males	Females
1. Ajmer-Merwara	1,626	969	657	20	16	4
2. Andaman & Nicobar Islands ...	139	122	17	...	...	...
3. Assam ...	2,033	1,138	895	448	269	179
4. Baluchistan ...	615	405	210	...	...	...
5. Bengal ...	6,505	4,462	2,043	...	...	...
6. Bihar & Orissa	5,304	3,412	1,892	...	...	...
7. Bombay including Aden) ...	3,426,127	1,805,811	620,316	372,160	187,749	184,411
Aden ...	2,618	1,702	916	...	...	...
8. Burma ...	17,706	12,511	5,195	...	...	...
9. Central Provinces & Berar ...	56,249	32,686	23,663	30,732	15,383	15,349
10. Coorg ...	53	33	20	...	...	...
11. Delhi ...	833	535	298	...	...	...
12. Madras ...	111,770	55,456	56,314	25	14	11
13. North-Western Provinces ...	144	56	88	...	...	...
14. Punjab ...	2,382	1,640	742	4	3	1
15. United Provinces of Agra & Oudh	4,112	2,439	1,673	102	57	45
TOTAL PROVINCES ...	3,636,598	1,921,675	1,713,923	403,491	203,491	200,000
States & Agencies.						
16. Assam States ...	2	1	1	...	...	...
17. Baluchistan States	3	3	...	...	...	...
18. Baroda State ...	2,119,551	1,088,238	1,031,313	180,384	91,427	88,957
19. Bengal States ...	89	71	18	...	...	...
20. Bihar & Orissa States ...	900	570	330	...	...	...
21. Bombay States...	1,453,228	748,110	705,118	207,168	106,796	100,372
22. Central India Agency ...	63,292	33,071	30,221	584,014	296,018	287,996
23. Central Provinces States ...	1,062	662	400	24	14	10
24. Gwalior State ...	28,661	17,093	11,568	75,469	37,200	38,269
25. Hyderabad State	33,915	18,069	15,846	16,285	8,925	7,360
26. Jammu & Kashmir State ...	289	235	54	66	31	35
27. Madras States Agency ...	4,710	2,437	2,273	...	...	...
Cochin State ...	1,261	693	568	...	...	...
Travancore State	2,275	1,175	1,100	...	...	...
Other Madras States ...	1,174	569	605	...	...	...

INDIA	GUJARATI			BHILI		
	Persons	Males	Females	Persons	Males	Females
28. Mysore State ...	4,600	2,604	1,996	11	6	5
29. North-West— Frontier Province	93	93	...	...	...	...
30. Punjab States ...	7	3	4	...	...	...
31. Punjab States Agency ...	132	91	41	2,938	1,652	1,286
32. Rajputana Agency ...	20,064	9,971	10,093	719,640	364,830	354,810
33. Sikkim State ...	...	...	...	...	...	...
34. United Provinces States ...	2	2	...	...	...	...
35. Western India States Agency...	3,483,786	1,767,013	1,716,773	41	20	21
TOTAL ...	7,214,386	3,688,337	3,526,049	17,76,040	906,919	879,121
GRAND TOTAL ...	1,08,49,984	5,610,012	5,239,972	21,89,531	1,110,410	1,079,121

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APPENDIX D.—Population—Rural and Urban in Greater Gujarat.

District or State.	Density of population per sq. mile.		Area in sq. miles.	Towns.	Villages	Population 1931 (In Thousands)			
	1931	1921				Persons.	Urban.	Rural.	Males. Females.
I. <i>British Districts of Gujarat.</i>									
Ahmedabad District ...	316	287	10,193	37	3,270	3,224	810	2,414	1,883 1,541
Broach District ...	240	233	3,846	12	869	1,000	400	600	528 472
Kaira District ...	227	210	1,468	5	403	334	69	265	175 159
Panch Mahals District ...	458	445	1,620	10	570	742	126	616	395 347
Surat District ...	283	233	1,608	5	648	455	73	382	237 218
II. <i>Bombay States and Agencies.</i>									
Cambay ...	420	408	1,651	5	780	693	142	551	348 345
Idar ...	165	140	10,399	19	5,615	1,711	140	1,571	882 829
Rest of the Mahi Kantha Agency...	251	...	350	2	1,02	88	37	51	47 41
Rajpipla ...	...	...	1,668	3	1,067	263	15	248	132 131
Chota Udepur ...	...	...	1,456	4	792	255	19	236	131 124
Devgad Baria ...	...	...	1,518	2	712	206	17	189	106 100
Lunavada ...	...	...	873	1	530	145	7	138	75 70
Balasnor ...	...	...	813	1	414	159	7	152	81 78
Santh ...	...	...	388	1	339	95	12	83	49 46
Sankhed Mewas ...	...	...	394	1	277	84	10	43	28 25
Rest of the Rewa Kantha Agency	...	...	323	...	312	59	...	59	31 28
Bansda ...	...	...	470	...	299	88	...	88	46 42
Dharanpur ...	...	...	215	...	86	49	...	45	26 23
Sachin ...	...	...	704	1	265	112	7	105	58 54
Dangs ...	...	...	996	1	20	22	1	21	11 11
III <i>Baroda State.</i>									
Baroda City ...	298	260	8,164	...	298	33	...	33	18 15
Amreli Division ...	...	...	11	50	2,920	2,443	523	1,920	1,258 1,185
Baroda Division ...	...	...	1,077	2	...	113	113	...	63 50
Mehsana Division ...	...	...	1,922	4	242	174	37	137	89 85
Navsari Division ...	...	...	3,068	17	823	712	125	587	375 337
Okhamandal ...	...	...	1,811	16	1,037	1,010	177	833	512 498
	...	...	275	9	776	404	60	344	203 201
	...	...		2	42	30	11	19	16 14

IV. Western India States Agency										
A. Seventeen Salute States										
Cutch ...	113	100	35,442	66	6,496	3,999	884	3,115	2,026	1,973
Junagadh ...	17	102	26,806	51	4,809	3,132	759	2,373	1,582	1,550
Nawanagar ...	62	59	8,250	8	946	514	87	427	249	265
Bhavnagar ...	166	142	3,284	7	828	545	118	427	279	266
Porbandar ...	108	91	3,791	5	685	409	89	324	206	203
Dhrangadhra ...	169	144	2,961	11	644	500	152	348	257	243
Palanpur ...	182	160	636	1	103	116	34	82	59	57
Radhanpur ...	77	76	1,156	2	151	89	24	65	45	44
Morvi ...	149	134	1,769	2	547	264	29	235	136	128
Gondal ...	61	59	1,150	1	164	71	11	60	36	35
Jafraabad ...	130	111	870	2	153	113	23	90	57	56
Wankaner ...	201	163	1,024	5	170	206	77	129	104	102
Palitana ...	228	207	53	1	10	12	6	6	6	6
Dhrol ...	106	88	417	1	101	44	11	33	22	22
Limbdi ...	207	193	300	1	97	62	13	49	32	30
Rajkot ...	98	84	283	1	66	28	8	20	14	14
Wadhwan ...	117	103	344	1	48	40	14	26	20	20
	268	216	282	1	65	75	47	28	38	37
	181	161	236	1	31	43	18	25	21.5	21.5
B. Eastern Kathiawar Agency										
Lakhtar ...	102	91	2,764	7	569	282	46	236	145	137
Sayla ...	96	86	247	1	48	24	6	18	12	12
Chuda ...	69	60	221	1	42	15	5	10	8	7
Vala ...	166	145	78	1	13	13	6	7	6.5	6.5
Lathi ...	129	104	109	1	38	14	4	10	7	7
Muli ...	224	198	42	1	9	9	6	3	4.5	4.5
Bajaria ...	129	123	133	1	19	17	5	12	9	8
Patdi ...	74	65	183	...	29	13	...	13	6.5	6.5
	66	64	39	...	8	3	...	3	1.5	1.5

States and Agencies	Density of population per sq. mile.		Area in sq. miles	Towns	Villages	Population in 1931 (Figures in Thousands)				
	1931	1921				Persons	Urban	Rural	Males	Females
Wadhvan Civil Station	13,344	11,721	1	1	...	13	13	...	7	6
Rest of the Agency ...	94	84	711	...	363	161	...	161	83	78
C. <i>Western Kathiawar Agency.</i>	159	144	2,397	8	559	3,82	78	304	194	188
Jasdan ...	120	108	283	1	54	34	6	28	18	16
Manavadar ...	217	174	100	...	22	22	...	22	11	11
Thana Deoli ...	137	121	117	...	21	16	...	16	8	8
Wadia ...	191	162	72	...	19	14	...	14	7	7
Virpur ...	122	101	66	...	13	8	...	8	4	4
Malia ...	118	123	103	...	16	12	...	12	6	6
Kotda Sanghavi ...	116	112	90	...	20	10	...	10	5	5
D. S. Vaia Mula Sarang of Jetpur (Pithadia) ...	64	60	122	...	18	8	...	8	4	4
D. S. Vala Rawatram of Jetpur (Bilkho) ...	402	182	40	...	25	16	...	16	8	8
Khairasra ...	99	281	47	...	14	5	...	5	3	2
Rajkot Civil Station ...	5,813	4,894	2	1	...	12	12	...	7	5
Rest of the Agency ...	166	158	1,355	6	329	225	60	165	113	112
D. <i>Banaskantha Agency</i>	59	60	3475	...	559	204	...	204	106	98
Tharad ...	43	42	1,261	...	164	54	...	54	27	27
Wao ...	39	59	537	...	60	21	...	21	11	10
Malek Shri Jorawar Khan's State (Varahi) ...	25	24	120	...	15	3	...	3	2	1
Rest of the Agency ...	81	75	1,557	...	320	126	...	126	66	60

REVIEWS

History of Gujarat. By KHAN BAHADUR M. S. COMMISSARIAT, M.A., I.E.S., Vol. I. (Longmans, Green & Co., Ltd.).

This book fulfils the long felt need of a comprehensive and critical history of Gujarat so far as the first three centuries of the Muslim sway over Gujarat, or to be more precise, from the end of the 13th century to the Mughal conquest of the province in 1573 A.D., is concerned. We understand that the author has pursued his studies further and the manuscript of another volume dealing with the Mughal period is well nigh ready. There could be no other person better suited to undertake this sort of arduous job than a Professor of History specializing in the Muhammadan period with sufficient spare time to devote to the study of the architectural and epigraphical remains extant in the capital of Gujarat, where the Professor fortunately had his headquarters for many years. The volume extends over 600 pages with 107 beautiful plates and maps including a carefully prepared comprehensive Index. The printing and plates have nothing to be desired. This coupled with the lucid and interesting style of treatment has made the volume all the more attractive. We congratulate Prof. Commissariat for this brilliant publication.

Like the late Mr. Kinloch Forbes of the Bombay Civil Service, who wrote the history of Gujarat about eight decades ago, under the title of "Ras mala" dealing mainly with the Hindu annals of the province reconstructed on the basis of the coins, copper plates and inscriptions over and above the literary works and bardic accounts, Prof. Commissariat has utilised all possible sources of information regarding his period contained in the formal histories of Gujarat originally written in Persian and Arabic by contemporary writers or later works based on them, and has also made use of the contributions made by the students of Epigraphy including Architecture. He has included in his book a study of the Architectural monuments and inscriptions scattered over the whole of Gujarat and brought together in a concise form all the information contained in the volumes of the Archæological Survey and District Gazetteers which are too rare to be easily accessible to an average reader. His information is supplemented and amply enriched by two new sources, viz., a closer study and use of the autograph manuscript of Hajji-ad-Dabir's Arabic History

of Gujarat published in three volumes by Sir Denison Ross, who has written an introduction to this book, and contemporary evidence contained in the records of the European travellers and Portuguese documents. The natural result of his patient labour to tap all these sources in Persian, Arabic, English and Portuguese languages and sifting useful historical material out of them, is, that he has been able to prepare a definitive history of Gujarat which supersedes all previous contributions on the subject and is likely to remain the final word on the history of this interesting period for a considerable length of time.

In order to present a synthetic whole, the author has added an Introductory chapter wherein he has very ably summed up within sixty pages the history of early and mediaeval Gujarat of about 15 centuries. In this rapid survey, over and above his original way of the treatment of the subject he has selected a few topics of discussion and commended them to the students of the history of this period for serious consideration. For want of space we cannot deal with them here.

It is high time that some scholars should come forward and take up the work of replacing the early history of Gujarat contained in Volume I, part I, edited by Sir James Campbell based on the contributions of the late Dr. Bhagwanlal Indraji by an up-to-date historical narrative based on the rich and useful material contained in the inscriptions, coins and manuscripts brought to light since the publication of the said volume in 1876.

The volume under review has all the phases of a history from the modern point of view. It is not a mere narration of the lives and administration of different rulers with the battles and events during their reigns in a chronological order. The modern notion of history is to give an insight into the personal character of the ruler, his relations with the subjects and social and political conditions prevailing in the country as vividly as possible without any exaggeration. Prof. Commissariat has tried to embody all these modern tendencies into his work which has thus made it a very instructive and interesting volume, though in the matter of the details of some epigraphical and numismatic surveys he has missed some points that would have corroborated several historical facts and strengthened his conclusions. All the same that does not in any way mar the credit that he deserves as the foremost modern historian of Gujarat. He has laid the students of the history of Gujarat under a deep debt of obligation by his valuable work. His bibliography will be a valuable guide to those who wish to work

on the same lines regarding the unexplored or inadequately studied periods of the history of Gujarat.

We look forward to the publications of another volume dealing with the Mughal period of the history of Gujarat and in the mean while we commend the study of this monumental work to the students of history.

R. G. GYANI.

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વિશ્વદર્શન : સંગ્રાહક, જો. મા. કામદાર, બી.એ. પ્રકાશક : ભારત સાહિત્ય સંઘ. પાનકારનાકા, અમદાવાદ. પા. ૪૮૦ કી. રૂ. ૩૦.

ગુજરાતી ભાષામાં આ જાતના પુસ્તકની ઘણી જરૂર હતી. આમુખમાં પ્રો. ચંદુલાલ વકીલે લખ્યું છે તેમ “વિશ્વદર્શનની પ્રસિદ્ધિથી ગુજરાતી સાહિત્યમાં આ જાતના પુસ્તકથી ખોટ પૂરાય છે.”

યુરોપ તેમજ અમેરિકામાં આવાં પુસ્તકો વિશેષ પ્રસિદ્ધ કરવામાં આવે છે. અત્યારનાં Specialisation ના જમાનામાં દરેક માણસ પ્રત્યેક વિષયમાં નિષ્ણાત થઈ શકતો નથી. તેને ઉપયોગી બાબતોની માહિતી આવા Reference works માંથી મળે છે. આપણાં દેશમાં આવી Year Books અંગ્રેજી ભાષામાં પ્રસિદ્ધ થતી હતી એટલે એનો અહીંજો ફેલાવો થતો ન હતો. પણ હવે ગુજરાતી સમાજ માટે તે મુશ્કેલી દૂર થઈ છે એમ કહી શકાય.

“વિશ્વદર્શન” માં દરેક જાતની માહિતીનો સમાવેશ થાય છે. હિંદુ વિષેનો એક પણ અગત્યનો વિષય ચર્ચાયા વગર રહી જતો નથી. પુસ્તકની આખરમાં હિંદના આગેવાન નેતાઓની ટૂંકી ચરિત્રાવળી આપવામાં આવી છે. વળી હિંદુ ઉપરાંત બીજા દેશોની તેમજ બીજા વિષયોની માહિતી આપવાનું લેખક ભૂલી ગયા નથી એ વાતની અનુક્રમણિકા જોતાં વાંચનારની ખાત્રી થાય છે. ટૂંકમાં સાધારણ માણસને જરૂરી સર્વે માહિતી ગુજરાતીમાં સમજી શકાય એવી સાદી રીતે રજૂ થઈ છે.

આવાં પુસ્તકોમાં આપવામાં આવેલી હકીકતો તથા આંકડા અત્યંત જોવા જેઠાં. આ દૃષ્ટિએ જોતાં આ પુસ્તક ખાત્રી ભરેલું કહેવાય. પણ સંગ્રાહકના વક્તવ્યમાં તેનો ઉલ્લેખ થયો છે એટલે વધારે લખવાનું રહેતું નથી.

બીજી બાબત એ છે કે વિષયોની ગોઠવણ ખરાબ નથી. ૩૩ થી ૩૮ પાનાં જોતાં માલમ પડશે કે “સૂર્યમંડળ” અને “જગતના અતિ ઉષ્ણ તથા શીતળ સ્થાનો” ની વચ્ચે “મનુષ્ય જાતિ” વિષે માહિતી આપવામાં આવી છે. આ ખાત્રીને લઈને કેટલાક વિષયોનો એ વખત ઉલ્લેખ થયા છે. “હિંદની ખનીજ દોલત” વિષે ૨૩૧ તેમજ ૪૨૧ મે પાને માહિતી આપવામાં આવી છે. એવીજ રીતે “હિંદના પ્રાંતો” વિષે ૨૪૬ તેમજ ૨૮૧ મે પાને ઉલ્લેખ કરવામાં આવ્યો છે.

આમ છતાં કંઈ પુસ્તકની ઉપયોગિતા ઓછી નથી થતી. એ જોતાં શ્રી. કામદારના આ સાહસને વધાવી લઈ એમને વર્ષોવર્ષ આવૃત્તિ કાઢવાનો પ્રસંગ આવે તો ઉપરની કેટલીક ખાત્રીઓ દૂર કરવાની તક મળે અને આ પુસ્તક વધારે ઉપયોગી થઈ પડે એવા હેતુથીજ આ વેદે ગણાય એવી ક્ષતિઓ ગણાવવાનો પ્રયત્ન કર્યો છે.

મ. હી. પરલ

NOTES

સ્વ. શેઠ લાલજી દયાળ

સ્વ. શેઠ લાલજી દયાળ કચ્છ-માંડવીના મૂળ રહીશ ભાટિયા હતા. તેઓ તથા તેમના મોટા ભાઈ હીરજી દયાળ મુંબઈમાં આવી રહ્યા હતા. શરૂઆતમાં તેઓએ કાપડનો ધંધો શરૂ કર્યો હતો, ઉપરાંત પરદેશથી સીધો માલ પણ મંગાવતા, તેઓ તથા તેમના મોટા ભાઈ પોતાની નીતિ, ટેક તથા સ્વખર્ચે આગળ વધેલા હતા. શેઠ હીરજી દયાળ ગુજરી ગયા પછી તેમની યાદગીરીમાં નાસિક પંચવટીમાં એક ધર્મશાલા બાંધવામાં આવેલ છે ત્યાં આગળ દરરોજ પંદર બ્રાહ્મણ વિદ્યાર્થીઓને જમાડવામાં આવે છે. તેમજ, ત્યાં સદાવ્રત પણ આપવામાં આવે છે.

શેઠ લાલજી દયાળ સં. ૧૯૮૮ ના વૈશાખ વદ ૫-તા. ૨૪-૫-૧૯૩૨ ના શ્રીના ચરણ પામ્યા તે પોતાની બધી મિલકતનું ટ્રસ્ટ કરી ગયા છે. ને નીચેના શખ્સોને ટ્રસ્ટી તરીકે નીમી ગયા છે:—

- ૧ શેઠ પદમશી મેઘજી
- ૨ શેઠ રણછોડદાસ હરજીવન
- ૩ શેઠ મેઘજી ગોપાલજી
- ૪ શેઠ સુરસિંહ લાલજી
- ૫ શેઠ લલ્લુભાઈ ત્રંબકરામ
- ૬ બાઈ જવેરબાઈ લાલજી દયાળ
- ૭ શેઠ જીવરાજ શામજી

શેઠ લાલજી દયાળે પોતાની હયાતીમાંજ ભાટિયા જ્ઞાતિ માટે ગીરગામ બેકરોડ પર એક સેનેટોરિયમ સરતા ભાડેથી ભાટિયાઓને રૂ. ૧૫ ના ભાડેથી, આપવામાં આવે છે.

શેઠ લાલજી દયાળ પોતાની હયાતીમાંજ તેમની પુત્રી બાઈ લીલાવંતી ઉર્ફે કબુબાઈ લાલજી દયાળના સ્મરણાર્થે એક હિંદુ હાઈસ્કૂલ કાઢવાનું ટ્રસ્ટ કરી ગયા હતા. તેઓશ્રીના સ્વર્ગવાસ પછી તેમના ટ્રસ્ટીઓએ મજકુર હાઈસ્કૂલ સેંડહર્સ્ટ રોડ પર બહુજ ઓછી શીથી કાઢેલ છે. હાઈસ્કૂલને મકાન જેની કિંમત આશરે રૂ. ૨૫૦૦૦૦ની છે તે, સોંપેલ છે. ઉપરાંત ગવર્નમેંટ સીક્યુરીટી રૂ. ૯૪૦૦૦૦ અંકે રૂ. ચોરાણું હજારની તેમના ખર્ચ માટે આપેલ છે. તેમજ તેઓશ્રીએ પોતાના વીલમાં પણ ફરમાવેલ છે કે રૂ. ૬૦૦૦૦ વાર્ષિક મજકુર હાઈસ્કૂલને નિભાવ ખર્ચ રીપેરીંગ વગેરે વાસ્તે આપવા તે મુજબ ટ્રસ્ટીઓ આપે છે.

હાઈસ્કૂલનો પ્રાથમિક ખર્ચ રૂ. ૩૫૦૦૦૦ આશરે થયેલ તેપણ તેઓશ્રીના ટ્રસ્ટીઓએ તેમના જનરલ ટ્રસ્ટમાંથી આપેલ છે. તેમની હાઈસ્કૂલમાં વિદ્યાર્થીઓની

સંખ્યા વધતાં જગાની સંકડાશને લઈ એથો માળ પણ ટ્રસ્ટીઓએ જનરલ ટ્રસ્ટ-ખાતામાંથી રૂ. ૨૫૦૦૦૭ ને આશરે ખરચી બાંધી આપેલ છે. ટૂંકમાં ટ્રસ્ટીઓની દરેક પ્રવૃત્તિઓ હાઇસ્કૂલને નમુનેદાર બનાવવા ચાલુ છે. ઉપરાંત હાઇસ્કૂલમાં વીશ ટકા જેટલી ક્રીશીય આપવામાં આવે છે તેની વાર્ષિક રકમ રૂ. ૪૦૦૦૭ જેટલી થવા પામે છે. તે જનરલ ટ્રસ્ટ ખાતામાંથી હાઇસ્કૂલને ટ્રસ્ટીઓ મદદ તરીકે આપે છે.

તેઓશ્રીના ટ્રસ્ટીઓ પણ તેમના ફરમાન મુજબ હિંદુ વિદ્યાર્થીઓની ઉચ્ચ કેળવણી માટે વાર્ષિક રૂ. ૧૦૦૦૦૭ અંકે રૂ. દશહજાર જેટલી સ્કોલરશીપો લાયક વિદ્યાર્થીઓને આપે છે. તેમજ કેળવણી આપતી સંસ્થાઓને પણ યોગ્ય મદદ આપે છે. ભરણપોષણ માટે માસિક યોગ્ય મદદ, આર્થિક સ્થિતિ જેની નબળી હોય તેવાને, આપવામાં આવે છે.

તેઓશ્રીના ટ્રસ્ટીઓ તરફથી ગુજરાત રીસર્ચ સોસાયટીને આ ત્રૈમાસિક ચલાવવા માટે ત્રણ વરસ સુધી સારી મદદ કરવાનો ઠરાવ થયો છે. અને તે મદદને લીધે સોસાયટીએ આ કામ માથે ઉપાડી લીધું છે. તેમાં આવી જ સહાનુભૂતિ ગુજરાતના બીજા દાનવીર ગૃહસ્થો તરફથી મળશે એવી આશા છે.

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Bibliographical Surveys.

At the request of the Council of the Society the Standing Committees in different subjects have organised the preparation of bibliographies of existing research work on Gujarat, Kathiawar and Cutch in each such branch of knowledge. Considerable progress in this connection has been made and it is proposed to publish these bibliographies in a suitable form in the Journal. In the present number the articles relating to the 'Parsis in India,' 'The Coinage of Gujarat,' and 'Research work in Baroda State' form part of this bibliographical survey. Similar articles on other aspects will be published in future numbers.

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Social and Economic Structure of Greater Gujarat.

The Standing Committee on Economics and Commerce has undertaken to compile basic data giving statistical and other information regarding the population of Gujarat, Kathiawar and Cutch. Some of the principal aspects of the economic life of the people will also be included in this collection. The nature of the work has been explained in some detail in the introduction to the article on 'Social and Economic Structure of Greater Gujarat' published in this number. Similar data on

other aspects of the problem will be published in future numbers.

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Shellac and Alcohol Industries.

Raja Mitra B. D. Amin very kindly gave a donation to the Society for preliminary work on the shellac and alcohol industries with a view to follow it up later by more intensive investigation into the possibilities of these industries in Gujarat to be carried out by a competent scholar, to be maintained out of a scholarship proposed to be given by him. The preliminary investigation has been conducted under the guidance of the Standing Committee on Physical Sciences by Mr. V. R. Heeramanek. The report of this work has been just received and will be published in the next number of the Journal.

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Great Educators of Gujarat.

Principal K. S. Vakil of the Maharani's Training College, Kolhapur has very kindly agreed to give a prize of Rs. 100 for the best Essay on "The Great Educators of Gujarat". The Essay must be written in Gujarati and any Gujarati speaking person irrespective of communities is eligible to compete for the same. The Essays will be judged by a Committee of three persons to be appointed by the Council of the Society, and their decision regarding the award of the prize will be final. The Essay thus judged to be the best will be published in this Journal in a suitable way. The Essays should be submitted to the Secretary of the Society on or before 31st December, 1939.

LITERACY IN GUJARAT.

By

P. G. SHAH.

1. The movement for mass literacy is engaging attention both of the people and Government. The problems connected with mass literacy are numerous and complicated and they cannot be completely envisaged without a study of the fundamental facts about literacy. Literacy has been defined in different ways for different purposes. The census enumerator has been instructed to describe as literate 'all persons who can both read and write a letter in any language'. But "effective literacy" implies the capacity for regular reading of books and newspapers, the writing of personal correspondence, and the keeping of simple accounts and this indicates a much higher standard. The term "literacy in English" implies a still higher standard both of education and social well-being in this country. It is well-known that "Literacy" in India is very low, as compared with that in the western countries. Even this low literacy reported in the Indian census statistics in the case of rural population is further reduced by the absence of opportunities for making use of this acquired faculty. As a result of this wastage, the "effective literacy" is much smaller than that reported. The percentage of literates in India at 1931 census was only 8.3. This is a definite advance over the 1921 percentage of 7.1. It is a poor consolation to know that literacy has progressed faster than the population of the country, for the slow rate of progress would damp the enthusiasm of any well-wisher of the country. The task of eradicating illiteracy is stupendous, the extent and nature of which can be understood if it is mentioned that unless the rate of progress is definitely improved it would take 760 years to secure hundred per cent literacy. The object of this paper is to visualise the problems of Gujarat as a whole and to provide material for further study of the 1941 census report.

2. The following figures afford sufficient material for a comparative study of spread of literacy in the country.

		No. of literate persons per 1000 of population.	
		Males.	Females.
BRITISH INDIA	..	163	29
Bombay Presidency	..	167	29
Bombay Presidency, British Districts		176	31
Bombay City	..	314	173
Konkan	..	171	27
Deccan	..	161	20
Sind	..	106	21
Western India States Agency	..	204	43
Cochin	..	460	220
Travancore	..	408	168
Burma	..	560	165
Baroda	..	331	79
Bhavnagar	..	254	64
Gujarat (5 British Districts)	..	254	46
Nawanagar	..	230	47
Cutch	..	192	38
Junagadh	..	186	29
Gondal	..	165	37
Palanpur	..	110	11

These figures give the place of honour to Burma, after which Cochin and Travancore come next. It is a matter of great satisfaction to find Baroda State in the fourth place. These positions remain unchanged even if only the population aged five years, and above of both sexes is taken into consideration for arriving at the percentage of literacy :—

Burma	..	..	..	..	..	..	..	36.8
Cochin	..	..	..	..	..	..	..	33.7
Travancore	..	..	..	..	..	..	..	28.9
Baroda	..	..	..	..	..	..	..	20.9
Bombay	..	..	..	..	..	..	..	10.8
Western India States	..	..	..	..	..	..	..	12.5
India	..	..	..	..	..	..	..	8.3
Hindus	..	..	..	..	..	..	..	8.4
Muslims	..	..	..	..	..	..	..	6.4
Jains	..	..	..	..	..	..	..	35.3
Parsis	..	..	..	..	..	..	..	79.1

(Figures compiled from those given at p. 326 of All-India Census Report, Vol. I, Part 1).

3. Gujarat holds the palm in the matter of highest literacy in the British districts of Bombay Presidency after Bombay City where special conditions prevail. In Baroda State, compulsory education has been in force for some time now, and the literacy is higher ; but not so very high as may be expected. In other states of Kathiawar and Cutch the

standard of literacy though it has risen considerably in the last decade, is not higher and much progress is yet to be achieved, as shown by the figures given below :—

	Number of literates per 1000 in 1921		Number of literates per 1000 in 1931	
	Males	Females	Males	Females
Gujarat (5 British Districts)	223	42	254	46
Baroda State	240	47	331	79
British Dists. of the Bombay Presidency	140	25	176	31
Western India States Agency	165	30	204	43
Cutch	152	24	208	38
Bhavnagar	208	50	254	64
Gondal	240	56	165	37
Nawanagar	153	27	230	47
Junagadh	156	23	156	29
Palanpur	88	8	110	11
Rest of Western Agency	164	30	213	49

(Figures taken from pages 99 to 102 of the Vol. X of Census of India 1931 (Western India Agency).

4. The Baroda State, occupies the premier position in the cultural institutions of Gujarat. A useful comparative study of the progress of literacy in the different parts of Gujarat is found at page 327 of the Baroda State Census Report (Census of India 1931 Vol. XIX), which is both instructive and interesting.

PROGRESS OF LITERACY SINCE 1901 IN VARIOUS PARTS OF BARODA STATE.

Number of literate persons per 1000 and all ages 10 and over.

Locality	Males				Females			
	1931	1921	1911	1901	1931	1921	1911	1901
British Districts of Bombay Presidency ...	155	140	121	113	27	25	26	10
Baroda State ...	361	277	229	199	80	51	25	9
City of Baroda ...	590	600	472	427	214	218	84	27
Central Gujarat (including City) ...	437	338	284	270	91	71	30	10
Kathiawad (Amereli, Kodinar, Okhamandal)	398	311	260	187	122	71	40	7
North Gujarat (Mehsa, Kadi) ...	294	215	173	137	53	30	12	3
South Gujarat (Navsari)	341	289	226	219	88	58	33	25

It is significant that literacy is the poorest in North Gujarat districts of the State and highest in the City of Baroda. In the Kathiawar districts of the State viz. Okhamandal, Kodinar and Amereli, it is much higher than in the North and South Gujarat districts and is higher than even the average for the whole of the Baroda State.

5. The fact of higher literacy in Kathiawar as compared with average of Bombay Presidency or the British districts of Bombay Presidency or with North and South territories of the Baroda State is a phenomenon of singular importance. Mr. Sorley in his report (Vol. X of the *Census of India*) on the Western India States Agency has given an interesting explanation which is worthy of further examination. Large areas in Kathiawar are of very low density and poor soil and the proportion of population supplied by agriculture is less than that in the Presidency and British districts of Gujarat. There is a comparatively larger proportion of population supported by commercial and trading pursuits, which are of the cottage type, concentrated in the smaller towns. A bulk of the Muslim population is employed in artisan and trading work. Generally it is more difficult to educate the agricultural workers and this has seriously affected the progress of education in the richer rural areas outside Kathiawar. It has also been mentioned already that the wastage in education and the loss of literacy is the highest in agricultural communities, for there are less occasions for the farmer to use his knowledge than for the trader. Whatever be the reason, the figures showing steady progress in literacy, except in Gondal State, however slow, form an indication in the right direction. It is also clear that the circumstances mentioned above account also for the higher literacy in Gujarat districts as a whole compared to other districts of Bombay Presidency. There are large classes of Kolis, Bhils and other backward classes in the districts of Panchmahals and Surat, yet there is such a great predominance of trading classes who are literate in the ordinary course of business, that the effect of the backward classes is not visible, in this statistics for British Gujarat as a whole. A large number of people emigrate more or less permanently for business and such communities imply a higher percentage of literates, and necessity of regular correspondence provides the opportunities in the absence of which the agriculturist soon loses his acquired literacy.

Literacy in Cities.

Cities.	Number per mille (all ages) who are literate.		
	Persons	Males	Females
Ahmedabad	160	240	50
Surat	326	459	171
Poona	330	458	184
<i>Districts.</i>			
Rest of the Ahmedabad District ...	119	200	30
Rest of Surat District	139	236	44
Rest of Poona District	75	129	19

The above figures taken from page 291 of the Bombay Presidency Census Report imply a generally higher standard of literacy in towns and cities as compared with the rural population. It is significant, however, that a highly industrial city like Ahmedabad shows a much poorer percentage for literacy as compared with less industrialised towns like Surat and Poona. The reason evidently is that the workmen and their families, whose number is proportionately larger, are generally illiterate. The scope for a programme of mass literacy among these classes is almost unlimited and the demand is most urgent and immediate. The results are also bound to be more far-reaching in view of the solidarity and accessibility of groups of workmen. All welfare work among workmen must be more productive than that among scattered villages.

7. *Progress of literacy in Gujarat 1911-1931.* The following figures taken from page 294 of the Bombay Presidency census Report show that the best progress has been achieved in Baroda State, while the improvement in the British districts of Gujarat is much less. In fact the 1931 figures show a backward movement as far as the British Gujarat districts are concerned, but these figures are not reliable owing to non-co-operation from several municipalities. However the broad fact remains that even with this progress, the final results are far from satisfactory, and that Herculean efforts are necessary to reach the ideal of complete literacy.

	1911		1921		1931	
	Males Females		Males Females		Males Females	
	Per Thousand		Per Thousand		Per Thousand	
Baroda State	175	21	210	40	330	79
British Gujarat Districts ...	201	26	223	42	220	39
Mahikantha Agency ...	90	5	100	9	113	13
Rewakantha Agency ...	73	6	80	13	87	12
Western India States Agency	159	18	165	30	173	36

8. *Literacy in English.* If, however, Gujarat has to hold a place in inter-provincial and international spheres, the standard for comparison is literacy in English and in this direction also the progress is far from satisfactory. With the growth of political institutions in the country and the increasing contact with the commercial, industrial and technical progress throughout the world, familiarity with the English alphabet is a matter of vital importance to the nation. A careful watch over these statistics is therefore necessary and it is expected that 1941 Census is bound to record phenomenal progress, even though the past figures have not exhibited startling results. It will be seen that literacy in English is lower in Gujarat as compared with the whole of the Bombay Presidency or even with the British districts in Bombay Presidency. Of course the figures for a cosmopolitan and industrially active city like Bombay cannot be easily approached, and even there, barely one man in ten shows familiarity with the English language. The number per mile of persons literate in English has more than doubled itself in the last thirty years; it was 13 males and 2 females in 1901, 17 and 3 in 1911, 23 and 4 in 1921 and 27 and 6 in 1931.

The following statement shows the number per 10,000 who are literate in English in 1931 at all ages (page 300 of *Bombay Presidency Census Report*):—

			Persons	Males	Females
Bombay Presidency	...	...	151	244	47
British Districts	...	...	175	273	56
Bombay City	...	...	1,166	1,426	628
Gujarat	...	...	131	255	20
States	...	...	53	98	6

The following figures of progress of literacy in English in cities as compared with that in adjacent rural areas exhibit the same inequality as commented on in para 6 above.

Number per 10,000 (all ages) who are literate in English.

Locality	Persons		Males		Females	
	1921	1931	1921	1931	1921	1931
Ahmedabad City ...	394	330	629	518	85	70
Rest of Ahmedabad District ...	45	65	83	113	4	12
Surat City ...	534	650	915	1,058	106	180
Rest of Surat District ...	79	95	36	181	8	10

Everywhere the urban areas are in advance of the rural areas.

The following figures taken from the Baroda Census Report (pages 311-315) are significant in showing that the literacy in English among males has increased to a much greater extent than in British Gujarat. But it is possible that the difference may be due to unsatisfactory enumeration in British Gujarat owing to the non-co-operation movement in some areas ; and the results at the next census would be anxiously awaited.

Number of literate in English per 1000.

				Males		Females	
				1931	1921	1931	1921
Baroda State	...	...	...	28	15	2	1
British Gujarat	...	...	...	24	20	2	2
Bombay City	...	...	...	153	118	78	49

The following figures of literacy in English expressed in number of persons of both sexes per 10,000 of population tell

an eloquent tale of progress of certain communities, mostly living in the larger cities :—

Parsis	...	...	...	...	...	5041
Jews	...	...	...	...	...	2636
Christians	...	...	...	...	...	919
Jains	...	...	...	...	...	306
Sikhs	...	...	...	...	...	151
Hindus	...	...	...	...	...	113
Muslims	...	...	...	...	...	92
Tribal	...	...	...	...	...	4

9. *Literacy among the female population.* The following observations of the Census Commissioner, Bombay Presidency describe with great accuracy the conditions also in Gujarat proper. The only community in which female literacy can be called satisfactory is the Zoroastrian which returns the high figures of 671 literates per mille of the female population. After that it is a big drop to 93 per mille in the Jain community. The Hindu Community shows only 22 females literate per mille. The superiority of the Zoroastrians in the matter of female literacy can easily be explained. They are almost entirely city-dwelling or trading people and they have not amongst them the social prejudices and beliefs which retard female education. The spirit both of Brahminism and of Islam has, so far been more or less opposed to the education and freedom of the female sex. That the education of women is unnecessary, unorthodox and dangerous is still the standpoint of a large section of Indian society in non-urban areas. The scheme of life which orthodox tradition imposes on the women of India presents obstacles to education which, if not insuperable, are at least formidable. From the comparison of the data of literacy in the cities with that in the rest of the districts, it is obvious that very little progress has been made in rural areas. The problem is common both in Gujarat and Maharashtra as evinced by the Poona figures.

	Number of literate females of all ages per 1,000.			
Ahmedabad	50
Rest of Ahmedabad District	30
Surat	171
Rest of Surat District	44
Poona	184
Rest of Poona District	19

10. *Diffusion of Literacy.* At present literacy is very imperfectly diffused. Everywhere the urban areas are in advance of the rural areas, and generally speaking the agricultural population, the labouring classes, the depressed classes and the primitive tribes are extremely backward as regards literacy. On the other hand the trading classes everywhere show a fair standard of literacy, which continues to rise. Of the five castes returning the highest figures of literacy four are grouped among the Brahmans. The Ghanchis of Ahmedabad and Surat who come sixth in the list are largely traders. The problem of increasing literacy in the country cannot be tackled without spreading education among the backward classes like the Bhils, Dheds, Mahars, Kolis, Dublas, etc. A detailed study of diffusion of literacy in various areas is necessary before effective planning in this direction can be secured. Institutions like the Bhil Seva Samaj in the interior and Labour Unions in the cities can achieve good results in quickening the progress of literacy.

11. The low level of literacy exhibited by the foregoing statistics points to the immense task that is before the country in providing schools, enforcing attendance and securing proper efficiency in results. The Report of the Director of Public Instruction of the Bombay Presidency (1937) furnishes the following figures for the year 1935-36, the available figures for the Baroda State are those for the year 1934-35. It is desirable that corresponding figures for various Indian States in Gujarat, Kathiawad and Cutch should be available but owing to the absence of a uniform standard of preparation of the administrative reports, it is difficult to get the figures from the published records. If the authorities of these States furnish information on the same lines as the British districts of Gujarat, the same will be incorporated in a further study on this subject, covering the whole of Greater Gujarat.

TABLE
Table showing all kinds of Recognised and Unrecognised Institutions.

District	Number of recognised educational institutions and pupils on 31.3.36.		Number of unrecognised institutions and pupils on 31.3.36.		Area in square miles.	Population (Census of 1931.)	Percentage of pupils in columns 3 and 5 to population (column 7).	Number of towns and inhabited villages.	Number of villages with schools.	Number of villages without schools.	Average number of square miles to each village with a school.
	Institutions.	Pupils.	Institutions.	Pupils.							
1	2	3	4	5	6	7	8	9	10	11	12
Ahmedabad	684	78589	114	10075	3846	924033	9.6	881	388	493	11.4
Kaira	775	64427	30	1698	1620	741650	8.8	580	375	205	4.3
Panchmahals	257	21223	61	2037	1608	454526	5.1	653	161	492	9.9
Broach	365	30599	76	3877	1468	334170	10.3	408	257	151	5.7
Surat	648	77308	77	4860	1651	693613	11.8	785	508	277	3.2
Total	2729	272146	358	22547	10193	3147992	9.4	3307	1689	1618	6.2
Baroda State (1934-35)	2367	252633	177	14145	8164	2443007	10.3	2970	—	—	2.7

12. The foregoing table places Ahmedabad district in the worst position as regards facilities for primary education are concerned. The number of villages with schools is 388, while 493 villages have no school at all ; there is only one village school for every area of 11.2 square miles. Surat district shows the largest number of schools distributed over 508 villages, while only 277 villages are without schools. The percentage of pupils to the total population is the highest in Surat district being 11.8 per cent. Panchmahal district has the smallest percentage of school-going population, firstly because of the large areas under forest and secondly, because of a large population of aboriginal tribes like Bhils who have not yet taken kindly to education. In Kaira there is a lower percentage of school-going population because of the backward communities like Dharalas and some Kunbi sub-castes, among whom, the influence of the Purdah system prevents a number of girls from attending school.

The number of schools per village largely depends upon the density of population and the willingness of the parents to send their children to school. It is understood that the education department in British Gujarat tries to provide a school for every village where regular attendance is about twenty—which means that the number on rolls must be about 30. If the villages are small or scattered widely, the attendance may not reach the desired figure and a school is not given. The following figures comparing the density of population and the average area served by a village explain the position more clearly :

	Average area Served by a Village	Density of population per sq. mile.	Number of Villages with Schools.
Ahmedabad	4.4	260	388
Kaira	2.8	457	375
Panchmahals	2.4	282	161
Broach	3.6	227	257
Surat	2.1	420	508
Baroda State	...	199	...

The number of schools and the percentage of population at-

tending schools are both highest in Surat district, evidently because the villages there are not scattered and the density of population is high. The density of population in Kaira district is high but the schools have evidently not yet proved popular among the agricultural and backward tribes which form a large proportion of the population. In Surat district there is another incentive, in the form of guaranteed provision for school buildings under a scheme adumbrated by Sir Purshotamdas Thakurdas who pays half the cost of a school building if the local village community provides the rest. It must, however be stated that even after the provision of fine school buildings much remains to be done in the matter of enforcing regularity of attendance and efficiency of teaching.

14. In this matter, it must be remembered that even a system of compulsory education by itself does not achieve the highest results. Baroda State has the benefit of a compulsory Education Act for the last quarter of a century, but the results, as judged by the figures of literacy or percentage of school-going population to the total population, cannot be considered to be gratifying. The percentage of school-going population in Baroda State is 10.3 against an average of 9.4 for all the British districts of Gujarat. It cannot be considered much of an advance after 25 years of working the Act. On the other hand, it compares unfavourably with Surat district which can boast of 11.3 per cent., while Broach district seems to have reached 10.3 per cent. without enforcement of compulsion in rural areas. The year-book of education 1938 published by the University of London Institution of Education reports that in Great Britain between the ages of 6-7 and 14-15 100 per cent. of the school-going population attend the schools. This may be partly due to the enforcement of compulsion, but it is remarkable that at even the age 5-6 years 90 per cent. of the children attend the schools, though at the 15-16, the attendance falls to 64 per cent, while it lowers down to 36 per cent. at 16-17, till finally at the age 19-20, the percentage dwindles to only ten.

15. The above figures indicate on broad lines that the problems of primary education and literacy require very careful planning, and neither force, nor compulsion, nor mere provision of ample money can work as much as willing co-operation on the part of the students and their parents, and efficiency of teachers, in attracting and maintaining a large attendance of

students. Further, it must be remembered that like all other acquired faculties, the one of reading and writing is likely to be atrophied by sheer disuse, and in all thoughtful campaigns against illiteracy, the continuous provision of wholesome and useful literature, in simple and attractive form at reasonably cheap cost should form as important a feature as provision of schools and teachers.

INDUSTRIAL USES OF ALCOHOL—PART I.*

By

DR. V. R. HEERAMANECK

Coal and oil have contributed largely to the development of modern civilization. These two products are, so to speak, the main springs which drive the wheels of modern civilization. The supplies of coal and oil though great are nevertheless exhaustible, and, hence, if they fail the complex machinery of modern life would stand still. The future of our civilization would, therefore, appear to be gloomy. There is, however, one chemical which has been abused from thousands of pulpits, forbidden for centuries by great religions of the world, and which has been blamed rightly or wrongly for causing a greater amount of misery than any other drug in the Universe, is in all probability next to water the most esteemed of all chemicals. Upon its use are founded whole industries, and were its production not artificially restricted by intricate legislation, almost every article of commerce from smokeless powders to photographic films, from lead pencils to straw hats would be appreciably cheapened. It is a chemical which so long as the sun shines, and the earth brings forth vegetation is producible in practically unlimited quantities. The chemical is in fact alcohol.

Alcohol has recently been attracting the attention of the Government and the industrialists of this country due to the fact that large quantities of alcohol are liable to be set free with the inauguration of the prohibition policy. Utilization of alcohol for power purposes has already been investigated in detail by the Government, and so this aspect of alcohol industry has only been casually reviewed in the present compilation which has been undertaken principally with the aim to bring to the notice of all those who are interested in alcohol, which can be available in large quantities in Gujarat for industrial purposes, its other multifarious, important uses.

* This is the first instalment of the work done by Dr. V. R. Heeramanek in connection with the donation of Raja Mitra B. D. Amin to the Society for preliminary work on the shellac and alcohol industries to which reference was made in the first number of the journal.

Alcohol is a colourless, mobile fluid miscible in water, and great many organic solvents, and burns with a colourless, very hot flame. It was certainly discovered by an accident. When or where is unknown. It was accidentally discovered by a family of savages in a great primeval forest thousands of years ago that sweet plant juices changed on keeping into a fluid no longer sweet, but which produced intoxicating effects. And so because a hundred thousand years or so ago some savages drank old, fermented, fruit juice, at the present time great factories have arisen employing hundreds of thousands of people.

Pure anhydrous alcohol has following characteristics: Sp. Gr. 0.7937, B.P. $78^{\circ}3$, V.P. at 20° 44 mm., M.P.— 120° , R.I. 1.3619, F.P. 57°F (14°C) I.P. 59° . Industrial alcohol (not denatured) has Sp. Gr. 0.8171 equivalent to 66° overproof, Acidity 0.005% (max. of Sulphuric Acid), Aldehyde 0.1% (max. as acetaldehyde), Residue 0.01 max. shows no turbidity with 5 volumes of distilled water.

Alcohol forms hydrates with water, the mixture being accompanied by contraction. It is miscible with other alcohols, aromatic hydrocarbons, and chlorohydrocarbons; it tolerates limited quantities of petroleum hydrocarbons, miscibility being dependent on water content. It is obtained commercially as a constant boiling mixture with water which contains 96.00% $\text{C}_2\text{H}_5\text{OH}$. In order to obtain a high degree of miscibility with petroleum hydrocarbons or to increase its solvent powers for nitrocellulose, the alcohol must be completely dehydrated, and for this purpose it is boiled with quicklime. More recently, however, it has been found more economical to employ azeotropic distillation with benzene or to dehydrate with hygroscopic or hydrate forming salts when a 99.80% spirit is obtained.

As mentioned before from primeval days the greater part of alcohol has been put to worst use viz. for the manufacture of beverages. As such alcohol finds extensive use in the production of wine and brewing industry. In the manufacture of wine alcohol is not separated from the fermented liquid. In effervescing wines (champagnes) a very valuable property of alcohol viz., its dissolving action on carbon dioxide under pressure is made use of; when the pressure is released carbon dioxide escapes with effervescence. In brewing the substance forming alcohol is starch—a part is changed into fermentable dextrine and greater part into maltose which is decomposed gradually on fermentation; a small part of the sugar seems to keep up secondary fermentation which is retarded by reduction of temperature

whilst the gradual escape of carbon dioxide contributes to the preservation of beer ; in brewing also alcohol is not separated from the fermented liquid.

Alcohol is also employed in making "liquors" which are alcoholised wines.

Whilst in brewing a part of the starch is converted into maltose, and is only by degrees transformed into alcohol and carbon dioxide, the object in distillery is to obtain from the given material (starch or sugar) in a minimum of time a maximum of alcohol which is separated from the fermented liquid in the distillery. The secondary fermentation is conducted so that the yeast destroys itself.

The possible sources from which alcohol can be obtained are very numerous, since any substance containing either sugar or starch may be used for the purpose. Not only these, but also wood and other cellulose containing materials serve as raw products for the manufacture of alcohol. Alcohol can also be synthesised from ethylene, acetylene, and calcium carbide, yet in practice it has always been obtained from sugar or starch. The chief raw materials for the production of alcohol may be divided into two great classes :—

(1) *Sugar-containing Materials*

In France, Spain, Italy and in fact all lands where wine is produced on a commercial scale, spirits are produced by distilling wines or winelees. Such spirits are known as brandies, and are much valued on account of their pleasant aroma due to wine fusel oils. The best brandies called cognacs fetch as much as 1000 francs per Kilolitre.

It is also possible to produce alcohol from sacchariferous substances such as sugar beets, beet molasses, palm, sap, cane sugar juice, figs, amber cane, and specially the residual molasses from sugar manufacture. Predictions have been made that the tropical countries, when potential resources are developed, will secure practical monopoly of the alcohol industry, since they possess three of the cheapest sources of alcohol viz. sugar cane, molasses, palm sap, and starch plants such as cassava and arrow-root.

(2) *Starch-containing Materials.*

Corn and potatoes form by far the most important alcohol producing materials. In England most of the spirits are made from wheat, barley and rice ; Germany makes nearly 80% of

the spirits from potatoes. Hungary and the United States make a large amount of spirits from maize and Russia from rye. In Brazil, the West Indies, the Azores, Algiers, etc., etc., potato (Sweet potato, Carolina-potato) which also contains besides starch a considerable amount of sugar is an important material for the manufacture of spirits.

Other less important sugar or starch containing materials are artichokes containing levulose, as fermentable sugar and inulin, asphodel, a starch containing tuber of the Mediterranean area, Sotal plant of N. Mexico and W. Texas and Sisal Waste, left after the removal of the hemp fibre, is used for the production of alcohol in Yucatan.

To enumerate to the chemist the compounds in the preparation of which alcohol is necessarily used either as the solvent or as the starting material could almost amount to a reading of Beilstein.

In this part of the essay we shall deal with important compounds in the preparation of which alcohol enters into the molecular composition of the product, and qua alcohol, the original spirit is destroyed. The chief products are :—

- (1) *Anæsthetics and Antiseptics* : Ether, ethyl, chloride and bromide, chloral, chloroform and bromoform, iodoform,
- (2) *Esters of fatty acids* : Ethyl formate, acetate, butyrate propionate, ethyl, acetoacetate, etc.
- (3) *Synthetic Drugs* : Phenacetin, Antipyrine, etc.,
- (4) *Dye stuffs and Intermediates* : Ethyl aniline etc.,
- (5) *Aldehyde* : Acetaldehyde.
- (6) *Acetic acid and Vinegar* :

Ether is prepared on a large scale by heating to boiling (100-150°) in a large lead lined vessel, a mixture of nine parts concentrated sulphuric acid and 5 parts 96% alcohol while simultaneously a constant flow of alcohol into the boiling liquid takes place from a tank through leaden pipes dipping into the liquid. Barbet (F. P. 479435, 1914 ; v also B. P. 100406, 1906) has devised an apparatus for the continuous production of ether. Kroft and Roos (B. R. P. 69115) have patented a method for the manufacture of ether from alcohol and benzene sulphonic acid. Ether is used as a solvent and extracting agent, especially in the manufacture of celluloid etc., etc. ; also as an anæsthetic for minor operations, since its vapour produces first intoxication and then unconsciousness.

Ethyl chloride is manufactured by mixing concentrated H_2SO_4 (2 parts) with 96% alcohol (1 Part), and after standing, diluting with water ($\frac{1}{2}$ part), adding KCl or KBr, (1 part) and distilling. It is used as a local anæsthetic ; it produces great cooling (when it evaporates).

Ethyl bromide is made by allowing 6 parts of bromide to slowly flow into a mixture of 1 part red phosphorus and alcohol, shaking and cooling continually during the operation. (Trans. Chem. Soc., 1915, 107, 1489 ; D. R. P. 52982). A general method for the manufacture of ethyl chloride and bromide is described in the German Patent (D. R. P. 280740 ; 1913).

Ethyl Iodide (Trans. Chem. Soc., 1892, 61, 717 ; Ber., 1884, 17, 649) is also an anæsthetic manufactured from alcohol.

For the manufacture of chloral a slow stream of dry chlorine gas is led into 96% alcohol, at first in the cold, but afterwards with gentle warming ; 7kg. of alcohol require 2 weeks for chlorination (Roscoe and Schorlemmer, Treatise on chemistry, 3, (i) 539 ; A. Trillat, Bull. Soc. Chim., 1897, 17, 230). The action is complicated, but finally chloral, CCl_2CHO is formed as a heavy oil. It is purified by treating with concentrated H_2SO_4 , then distilled from H_2SO_4 dried and rectified, the part passing over between 94-95°C being pure chloral. It forms an oily liquid with a penetrating smell. Do,°, 1,541 ; B. P. 97°.

Ullmann (Enzyklop. der Tech. Chem. 3, 404) devised an improved method for small scale chlorination. To produce chloral hydrate 100 parts of chloral are mixed with 12.25 parts of water, when combination ensues and a mass of large monoclinic crystals are produced. Chloral hydrate heated with alkalis yields pure C H Cl_3 .

It is used in medicine as a sleep producer, but it is now replaced by more efficient drugs.

By the action of alcohol on bleaching powder is manufactured the most important anæsthetic viz. chloroform (D. R. P. 129, 237 ; Freichs, J. Ind. Eng. Chem., 1912, 4, 345, 1106). The reaction leading to the formation of chloroform is complex, chloral (loc. cit) being first formed which decomposes in the presence of the calcium hydroxide of the bleaching powder into chloroform and calcium formate. Aldehyde is simultaneously produced.

Chloroform is obtained in better yield by Besson's continuous process. By this process (German Patent 129, 237) chloroform is obtained from alcohol in almost theoretical quantity and in an extremely pure state; moreover, the process has the great advantage of being a continuous one. Alcohol, as free from water as possible is chlorinated by dry chlorine gas until the chlorination product attains a density of 25-35° Be, or even more, whereby chloral hydrate or similar body is produced. The chlorinated alcohol is now treated with milk of lime or other caustic alkali with gentle heating, when pure chloroform is evolved. It is stated that 100 parts of alcohol yield from 95-105 parts of pure chloroform.

Chloroform can also be obtained by the electrolysis of an alcoholic solution of Cu Cl_2 (not a commercial success upto the present). Chloroform is a colourless liquid, with sweetish pleasant taste and smell. B.P. 61.5°; Do_{15}^0 1.5008. When used as an anæsthetic contains 2% alcohol. It is largely used as a solvent, especially for rubber, gutta-percha etc.; it is also used as a cleansing agent.

(Bromoform is obtained by electrolysis of a mixture of alcohol, water and Kbr.)

Iodoform is obtained by electrolysis a mixture of 14 parts sodium carbonate, (anhydrous), 10 parts K I, 100 parts water, 20 parts alcohol at a temperature of 70° (R. Rother, Pharm. J., 1874, (ii), 4, 593; Filhol, J. Pharm. Chem; 1845, (ii), 7, 267; Ott, D. R. P., 109013, 1898; Elbs and Herz, Zeitsch. Elektrochem, 1897, 4, 113; *ibid* 268; J. Pr. Chem., 1897., 56, 53).

Ethyl acetate, ethyl propionate, [Schuman, pogg, Ann. (2) 12, 45] ethyl acetoacetate (A. Cohenzyl Chem. Ziet, 1914, 38, 665), ethyl formate (Sendernes and Aboulene, *compt. rend*, 1911, 152, 1671; Kopp, *Annalen*, 1845, 55, 180, Engelskirschen, D. R. P. 255541), ethyl butyrate (Roscoe and Schorlemmer, *Treatise, on chemistry*, 3, i, 595), ethyl nitrate, (Dunstan and Dymol, Pharm. J. 1888, (iii), 18, 861; Feldhaos, *Annalen*, 1863, 126, 71), ethyl nitrate (Millon, *Am, chim. Phys.* 1843, (iii), 8, 233; Lossen, *Annalen*, 1868, 220), ethyl hydrogen sulphate (Merk, D. R. P. 77278), diethyl sulphate Merck D.R.P. 133642; Calession and Lundvall Ber., 1880, 13, 1699; Lithenfeld, Aust. P., 63526, J. Chem. Soc. (Abstr.) 1914, 106, (i) 919; B. R. 117824, 1917; B. P. 119250) and ethyl mercaptan.

(Roscoe and Schorlemmer, Treatise on Chemistry, 3(i), 378 ; Ber., 1887, 20, 3411) are all compounds in the preparation of which alcohol serves as a raw material. A general method of obtaining esters of fatty acids from alcohol has been worked out by Sabatier (Compt. rend. 1911, 152, 494, 1044).

Esters of fatty acids are extremely valuable as fruit essences and some of these are also used in medicine. Ethyl acetate (artificial pine-apple essence) is extremely valuable in the synthesis of medicinal compounds like antipyrine etc.

Esters of fatty acids are produced by heating together a mixture of alcohol and an organic acid usually in the presence of some dehydrating agent such as H_2SO_4 , HCl gas, etc., the mixture is then distilled. Many esters are conveniently prepared by dissolving the organic acid in alcohol, passing dry HCl gas through the mixture, separating the ester as an oil by adding water, drying and distilling.

Ethyl formate is prepared by distilling a mixture of alcohol, oxalic acid (dehydrated) and glycerol. The oxalic acid splits up into formic acid and carbon dioxide. The nascent formic acid immediately combines with the alcohol giving the ester. It is a volatile liquid B. P. 54.5° used in the preparation of rum and arak.

Ethyl acetate is prepared on a large scale by boiling together a mixture of alcohol, acetic acid, and H_2SO_4 usually in a steam heated copper still, provided with a rectifying column. The distillate flows into a vessel provided with a stirring apparatus, and is there washed with alkali to remove H_2SO_4 , then with water, dried over $CaCl_2$ and rectified over calcined magnesia. It is less frequently prepared by heating dehydrated sodium acetate with concentrated H_2SO_4 and alcohol. Ethyl acetate may be freed from P_2O_5 by heating for 30 minutes with a reflux condenser over P_2O_5 and then distilling. It is a pleasant smelling liquid B. P. 77.5° used as a solvent in making smokeless powders, and in other industries as well ; much used as synthetic agent, for example, in the manufacture of antipyrine ; also for perfuming fruit juices, spirits etc., and in medicine.

Ethyl butyrate of commerce is really a mixture of the ethyl esters of normal butyric acid and of other similar acids. It is obtained by distilling rectified butyric acid with alcohol and sulphuric acid. It is used for flavouring purposes. B. P. $110-121^\circ$.

Ethyl benzoate is prepared by the action of dry HCl gas on benzoic acid dissolved in alcohol; separates as an oil on adding water; B. P. 213°. It is used for manufacturing essences and perfumes, and also in synthetic chemistry for introducing the benzoyl group into certain synthetic drug especially local anæsthetics.

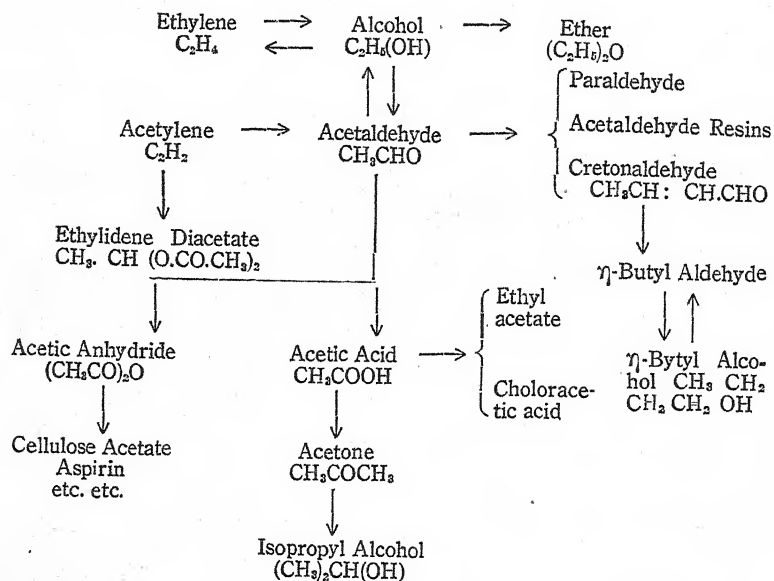
Ethyl nitrate is obtained by mixing 3 parts crude 40% HNO_3 with 12 parts alcohol (Sp. Gr. 834-830) and distilling till red fumes appear; neutralizing the distillate with calcined magnesia and pouring off from this after 24 hours; 3 parts of alcohol are added and the whole is rectified. The substance decomposes, becoming acid on standing, when it must again be neutralized with magnesia and rectified. Ethyl nitrate boils at 16°; the commercial "Ethyl Nitrate" is an alcoholic solution of the substance. Used in the manufacture of the cheaper kinds of essences; also in medicine.

The important intermediates monoethyl aniline and ethyl benzyl aniline (J. Amer. Chem. Soc., 1885, 742), acetaldehyde (F. P. 455370; Tischtschenko, Chem. Zentr., 1906, 2, 1309, 1452), and vinegar are all obtained from alcohol.

In coal tar colour works alcohol is extremely used as the starting point of the manufacture of ethyl aniline from which so many coal colours are derived, and also as a purifying, extracting, and crystallizing medium; each German coal tar colour factory is said to use 10 to 60 metric tons of alcohol per annum, but of course, most of it is recovered and used again.

Acetaldehyde is largely manufactured from the first runnings of rectifying stills in the manufacture of spirits. It is formed by the oxidation of alcohol; crude alcohol is purified by treating with animal charcoal; a considerable amount of acetaldehyde is produced. Acetaldehyde is sometimes manufactured by oxidizing alcohol. The acetaldehyde (B. P. 21°) distills from the mixture, and is absorbed by dry ether; then dry NH_3 gas is led into the ethereal solution and the aldehyde separated as aldehyde ammonia. This, when distilled with dilute H_2SO_4 yields acetaldehyde which is dehydrated over CaCl_2 . It is a colourless mobile liquid with a peculiar colour. B. P. 208°; M. P.—120°; Do° 0.8009. Mixes in all proportion with water and alcohol. It is used for making quinaldin, quinoline yellow, hydrazine etc., it can be further oxidized catalytically to the extremely important chemical acetic acid; it is the starting

point for a long series of synthesis as the following table will show :—



Wine vinegar is not manufactured in England on account of the absence of wine. On the continent it is, however, an important industry. The best wine vinegars are made by the Orleans process. Wine vinegar is much valued for its pleasant boquet. It is used for flavouring meat etc., and also for making white lead.

GUJARAT : HIGHWAYS OF ARYAN MIGRATION. ✓

By

Prof. P. M. TRIVEDI.

The object of this article is to explain and interpret the possible direction of Aryan migration on the plains and the river valleys of the mainland of Gujarat. The attempt is mainly made to formulate a hypothetical reasoning to interpret this age-old phenomenon so well enacted in a definite direction, only in the river valleys of the northern Gujarat. I am also conscious that little has been done till now to explain this peculiar fact in the literature on the subject, even though it has exercised, to my mind, a profound influence on the spiritual and religious make-up of the mind of Gujarat. I, therefore, presume no dogmation in my endeavour to correlate the data available to me in submitting a tentative hypothesis with regard to the problem.

The mainland of Gujarat, especially its northern portion is drained by many rivers, many of them forming perennial streams of water. The northern frontiers and the land beyond do not seem to be fit places for human habitat because of the hilly barren tract of highlands almost arid in climate and very low in fertility encircling the north, north-east and the east of the region. The north-west and the west are equally useless because of the increasing aridity and a progressive desert condition, while the south and south-west are washed by the waters of the sea. Confined within these borders is a rich and fertile plain of north Gujarat opening itself towards the Indo-Gangetic plains through a pronounced gap between the isolated mount Abu and the dry rocky scraps of the Aravalli ranges.

It should be clear from this physiographic account that the land of Gujarat is just like a coveted prize for human settlement, at least for those inhabiting the barren uplands stretching from beyond its borders to the rims of the fertile Indo-Gangetic plains. It is a fact commonly known that the Aryans settled at the initial stages on the Indo-Gangetic plains, in or near about the Punjab and later on, they migrated toward the south-east in the Gangetic Valley. All the

same, we find a number of Rishis of outstanding merit associated with the plains of Gujarat from the topmost pinnacle of the Mount Abu to the adjoining plains near Siddhapur and Palanpur, the upper courses of a network of rivers large and small, towards the east and the south-east in the territories of the northern Gujarat. These venerable sages are well-known to the Vedic, Upanishadic and Puranic literature of India. They are supposed to belong to the Aryan stock and probably no one has yet contended their Aryan pedigree. This fact of their settlement in Gujarat considered with an equally important historical records of their settlements on the upper and the middle course of the Ganges raises a very pertinent problem for investigation, as to how these Aryans chose to move down so low towards the south from across the extensive tracts of the Rajputana deserts, leaving their original habitat in the Punjab enshrined in lovely landscape and fertile soil.

It is now also discovered that there was flourishing a very old pre-Aryan civilisation in Gujarat. The Vedas consider the pre-Aryan race inhabiting Gujarat not non-Aryans but a race other than the Aryans.¹ The coast line of Gujarat was highly reputed for trade and commerce even before the Puranic age.² Old literature as also the Mahabharata and the astronomical works present this fact very pointedly.³ Gujarat was inhabited by the mercantile community belonging to आर्येतर group at which the Vedic literature looks askance and metes out specific injunctions against visiting the land of Gujarat. To visit a land bereft of Aryan race and Aryan culture was supposed to be sacrilegious and the behests of the Vedas were directed to expatiate the sins in order to be repatriated. Originally, therefore, Gujarat was not approved by the Aryans as a land meet for settlement, and yet in course of time one curiously finds that the Aryans have not only migrated there but have also settled on the same land. The entire coast line of Gujarat presents phenomenon of 'Shaivaitic'-worship. The Vedas do not recognise 'Shiva' to be the God of the Aryans.⁴ The 'Shaivaitic'-worship was practised devoutly from the mouth

1. आर्येतर प्रजा "Aryetar" race : Asura in India : By A. P. BANNERJEE SHASTRI.

2. स्कंद पुराण : "Skanda Purana"

3. वराह मिहिर : "Varahamihira"

4. (i) Pandit Anant Prasad Banerjee : Asura in India.
(ii) Bhandarkar : Shaivism.

of the Indus to the north of the Narbada river. In course of time this form of worship deteriorated to worshipping the symbol of Shiva. It spread far and wide in the interiors¹ of the land and got so strong a hold of human imagination that many of the names of the villages give a smell of that particular symbol. A large number of villages have their names with a prefix *खं* which transcribe the symbol of Shiva's form in worship.² The northern tracts and especially the barren hills presented the phenomenon of the worship of Goddess, a form of worship possibly strange to the Vedic lore.³ The Aryans were patriarchal⁴ while the 'Asuras' were matriarchal. This *अर्यैतर* race of Gujarat, by whatever epithet it was then known, had a civilisation in common with those inhabiting the lower course of the Indus. The archæological excavations near Mohenjo Daro have decisively borne out this truth and it is now safely observed that Gujarat was within the ambit of Mohenjo Daro civilisation before the Aryans migrated there.⁵ This pre-Aryan culture was interrupted by the Aryan teams pouring in and ultimately settling in the coveted fertile land of Gujarat. Apart from a large number of Rishis⁶ who preached and flourished on the water ways in the land, the existence of the temples dedicated to sun-worship is a reminder of the indelible Aryan influence.⁷ Sun-worship was not known to Gujarat in pre-Aryan days. That these Aryans came to Gujarat from the Indo-Gangetic plains is no more open to contention.

The possible highways they should have resorted to seem to be either the course of the Indus or the Narbada-Son depression or the water-way of the Saraswati which is now shrouded in the mysteries of geological history.

(i) It is easy to conjecture that the Aryans might have followed the water-way of the Indus from the Punjab plains right up to its mouth; then deflecting in the east they might have entered the plains of Gujarat. This pre-supposition, however, appears to be untenable because hitherto,

1. Marshall : Mohenjo-Daro.

2. *खंभाळीवा, खंभळव, खंभडा, खंभोळज, खंभाली* etc.
Ratnamanirao Bhimrao : History of Cambay.

3. Marshall : Mohenjo-Daro, Vol. I.

4. A. P. Benerjee Shastri.

5. Marshall : Mohenjo-Daro.

6. *सूर्य, च्यवन, कर्दम, दधिवि, कपिल, विश्वामित्र, वसिष्ठ, गुरुदत्तात्रय, जाबाली* etc.

7. Near Idar, Prabhas Patan, Modhera and Cambay.

the lower Indus basin is not known either in history or mythology to have any bearing with the Aryan stock. At the same time the course of the lower Indus happens to be through the deserts. The incoming Aryans were devoutly attached to Natural beauty and were feeling quite secure in the fertile Indo-Gangetic plains. That they should have preferred to plod on unwittingly for miles together through deserts so as to come and settle in Gujarat seems to be quite inconceivable.

(ii) As already referred to, there is another possible highway through the Narbuda-Son depression. The course of the Narbuda river is a well-known holy abode of the Vedic Rishis. It is connected at the head-waters with the source of the Son. The Son empties its waters in the Ganges. There is a continuous depression from end to end of these two rivers cutting asunder the highlands on two sides and linking up the plains of Gujarat with those of the Ganges, and we know that the Gangetic plains were the abode of the Aryans. Moreover, there are fertile fields and smiling landscape over the margins of the Narbuda-Son depression. The Narbuda river comes next to the Ganges in point of sanctity and veneration which is a fact of considerable importance. Thus the entire material put together enables anyone to presume the Narbuda-Son depression as a probable highway of the Aryan migration in Gujarat. That this entire depression was once a zone of a distinctive civilisation gives a further fillip to this tentative yet intelligible conjecture.

(iii) Another possible highway assisting the migration of the Aryans in Gujarat is the course of the Saraswati river. Even a presumption of this highway raises a number of serious questions, yet unsolved. Which is that Saraswati river? Is it any one of the three existing Saraswati rivers? In our days a small river bearing Saraswati name joins the desert of cutch; another one of the same name meets the sea near Prabhas Patan in Kathiawar and third one bearing the same name flows and disappears in Patiala State. Could the Saraswati river be conclusively located? Solution of these interrogatives will enable us to decipher and locate the line of Aryan migration. However, it should be understood at this stage that the Saraswati we refer to, is now no more. It flowed once but has disappeared long ago during the movements of crustal upheavals.

The river Saraswati has been frequently referred to and eulogised in Rig Veda as a torrential river following continuous-

ly from the Himalayas to the south and south-western sea.¹ It was held to be the most sacred river of India when the Ganges was a mere passing name. It is described as a very long river remarkably wide like the sea and full of high waters. None of the present Saraswati rivers agree with the description of the Vedic Saraswati. The Rig Veda calls it a queen of all rivers with a number of sister rivers like the Jumna and others joining it.² The Rig Veda also assigns its source to the Himalayas near about the borders of Kashmir. Its entire course was replete with sages and was studded with the holy places of pilgrimage. It ran straight from the Himalayas across the Punjab plains and the Rajputana lands, ultimately meeting the Arabian Sea with a wide open mouth forming the Gulf of Cambay. Moreover Rig Veda never considers Saraswati as a Goddess of learning. It is considered as the Goddess of rivers.³ The Puranas also subscribe to the vedic lore of the Saraswati as to its source and sanctity but they differ from vedic descriptions with regard to its course of the sea. Even the Puranas do not seem to agree on this point in between themselves. They weave a fantastic web around it.

Some of the writers who adhere mostly to Vedic descriptions agree on the source of the Saraswati in the Himalayas but they differ in so far as they consider the Saraswati meeting the sea of Cutch which is now converted into a desert,⁴ while some of the Puranas bring down Saraswati right across Kathiawar so as to enable it to join the Arabian Sea near Prabhas Patan.⁵ Even a cursory glance can sufficiently convince any one that a river so large and so wide as the Saraswati cannot cut across Kathiawar because during the periods of early geological movements on the west coast of India, Kathiawar was like an island washed by the sea in the north.⁶ If it were so, the Saras-

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1. Rig Veda : एकाचेत्सरस्वती नदीनां शुचिर्यतीगिरिभ्यऽआसमुद्रात् ॥
 2. Rig Veda : नदीतमा : 1-3-12. 2-41-16.
Howarth and Herbertson : Oxford Survey of British Empire.
 3. Rig Veda : तत्र सरस्वतीति एतस्य नदीवद्देवतावश्च निगमा भवन्ति ॥
2-41-16 : अंबितमे नदीतमे देवीनमे सरस्वति ॥
 4. Pargiter : Anc. Indian History Tradition.
Sir T. Holdich : Kathiawar Gazetteer. p. 75.
Indian Historical Quarterly. Vol. VIII. 2. 354.
 5. स्कंदपुराण, प्रभासखंड : 27-29.
महाभारतः शल्यपर्व, अ. 34 : प्रभासं प्रथमं तीर्थं सरस्वत्या जगामह
 6. Kathiawar Gazetteer

wati had to meet and flow through the sea first in order to re-appear in Kathiawar, which obviously appears incongruous and impossible. Nor is it possible to believe on the strength of some writers who show the Saraswati ending in the sea of Cutch which is now a desert. Absolute reliance on a thesis like this will mean utter falsity of Puranic descriptions. These descriptions, however, are yet not proved to be conclusively false and entirely fantastic. In fact, they have become valuable assets at least in so far as they give us the inkling regarding the lower course of the Saraswati.

The Mahabharata also alludes to its course and speaks through anecdotes about its holiness. The Padma Purana identifies few holy places of the Saraswati on the course of the Sabarmati¹ while the "Skanda Purana" makes an emphatic reference to the Sage Vasishtha who practised penance on the slopes of the Mount Abu. His was the mission to purify the blood-red water of the Saraswati whom Vishwamitra had cursed. Vasishtha created two rivers on the spot, one of them being the present Saraswati and the other being the Sabarmati.² This anecdote illustrates quite clearly that the present Saraswati and the Sabarmati are of a very late origin, being the offsprings born together of the one river. This phenomenon may be attributed to serious earth tremors and volcanic actions so common in those days on this side of Gujarat.³

The Puranic descriptions agree with regard to the upper and the middle course of the Saraswati through Patiala State, Panipat and the region round about, Pudukar in Rajputana and the low land region facing the scraps of Abu towards the west and the north-west.

Gleaning through all this available material the difficulty arises only in locating its lower course upto its mouth. Of course, it cannot be imagined to be straight across Kathiawar because of the intervening arm of the sea. Nor can we conclusively assign its end in the sea of Cutch in view of the sudden appearance of the twin rivers, the Saraswati and the Sabarmati

1. पद्मपुराणः साधर्मति माहात्म्य

2. स्कन्दपुराण, नागरखंड, अ. १७३:

एकस्य-सलिलं क्षिप्तं यत्र जाता सरस्वती ॥ १३ ॥

द्वितीयस्तु प्रवाहोयः संभ्रमात्तस्य निर्गतः ।

सात्र साधर्मतीनाम नदी जाता धरातले ॥ १४ ॥

3. स्कन्दपुराण.

at the instance of Vasishtha.¹ We have already referred to it previously. In addition to this we know of the holy places once banking on the Saraswati are now known to exist on the upper courses of the Sabarmati and the Vatrak. Even this fact withholds any one from asserting conclusively the supposed end of the Saraswati in the sea of Cutch. All the same, then divergent hypothesis are of considerable importance in fixing up of the lower course of the river and its mouth. Correlating this type of divergent and dispersed material one can imagine the course of the Saraswati deflecting towards the south and south-west from near the Abu escarpments. The available physiographic details of the land in the light of early geological history corroborate this view. Thus winding at the foot of the Aravalli scraps, the Saraswati was following across the plains of Siddhapur and Palanpur. Deflecting then towards the south-east and making a deep curve it is supposed to have flown through a very low-levelled part of "Nar" lake² between Gujarat and Kathiawar.³ It should have been then flowing with flooded banks dividing Kathiawar from Gujarat right across the present gulf of Cambay⁴ till its opening in the Arabian Sea a very wide mouth ; Prabhas Patan being on the western with fringes of the estuary and the land of "Bhrigus" on the eastern banks. The Narbuda and the Tapti were joining the Saraswati instead of flowing in the gulf of Cambay.

The Vedic "Bhrigus", "Purus" and the "Yadus" are associated with the waterway of the Saraswati. The Sage Dadhichi is connected with the same river near Siddhapur as also with the Saraswati. In the same way Agatsya and Jabali came to be associated with the Sabarmati and the Vatrak respectively after the disappearance of the Vedic Saraswati. Many of the names of the Rishis as also the holy places once associated with the course of the Saraswati are now extinct while some of them are left to link with the upper courses of the rivers draining the the north Gujarat plains.⁵

In view of such a continuous long course of the Saraswati from the Himalayas right upto Gujarat in its lower basin,

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2. स्कंदपुराण नागरखंड.
 2. नळकंडो as it is called.
 3. मरुभूमि or the Raun of Cambay.
 4. Ahmedabad Gazetteer.
 5. सात्रमती माहात्म्य कपालमोचनतीर्थ, सोमतीर्थ, सप्तशारस्वततीर्थ, etc.

the Saraswati river could be easily conceived as the accessible highway for the migration of the Aryans from the north. The Sefflex race of the Aryans had to face no impediments in their onward march because the Saraswati river had enough of landscape to please their æsthetic sense and the fertile field on its margins to give them enough of food. But no trace is left of this highway after the disappearance of the river during early geological movements gripping the north-western coast of India.⁴

It is now known that in the northern hemisphere the rivers flowing north to south have shifted their courses from south to south-west as a result of cumulative movements of the earth's rotation and the crustal movements within the interior of the earth. The volcanic activity was frightfully frequent on this unstable part.² The terrestrial forces worked stormily and the major part of that region was remodelled. During this period of untold crustal disturbance the Saraswati river was dissected and the present small rivers, draining northern Gujarat, were formed.³ That entire region was reshaped and the levels of land and water were changed.⁴

In the wake of this phenomenon when the Saraswati had already disappeared, its sanctity was shifted to the Ganges and the offshoots of the dissected Saraswati, now flowing through north Gujarat plains. The Sabarmati, the Vatrak and the tiny Saraswati of our times, all of them share holiness and the sanctity of the disappeared parental river. At the same time a large number of places on the upper courses of these rivers are reputed for the hermitages of many Rishis famous in the literature and history of Gujarat. These Sages and their stock, their hermitages and their preachings, their penance and their performances have been the abiding forces all these years in moulding the spiritual, the religious and the social life of Gujarat and her people.

1. Ratnamanirao Bhimrao : *Shankhapur in Vadhar and Nagadhaimb near Bhavnagar.*

2. Briggs : *Cities of Gurjarashtra.*

स्कंदपुराण ; नागरखंडः—यदावै भूमिकंपस्तु संप्रजातः सुदारुणः ।

रक्तश्रुंगः प्रचलितः स्वस्थानादति वेगतः ॥

3. A Das : *India and Jambu Island.*

4. R. B. Whitehead.

BIBLIOGRAPHY ON BRAHMANICAL RELIGIONS AND PHILOSOPHY IN GUJARAT ✓

By

D. K. SHASTRI.

The following list is in no way claimed to be complete. This being the first attempt of its type there is every possibility of its being incomplete and imperfect. There has been a good deal of research in Brahmanism with all its branches and systems of philosophy from a wider view-point embracing the whole of India. But as far as Gujarat is concerned, these subjects have been discussed to a very little extent. Again Gujarat has often accepted Indian Religion and Philosophy without any particular change ; thus we would hardly find any specialisation in Gujarat regarding these matters. To take an illustration, Pushti Marga as propounded by Vallabhacharya has occupied a very wide field in Gujarat ; much has been written concerning the life of Vallabhacharya, principles of Pushti Marga and its literature and such allied subjects. But from all this it is very difficult to find something which can be said to belong exclusively to Gujarat. The Pushti Marga is the same in Gujarat as elsewhere. In this state of affairs, it becomes a problem as to what should be included here and what should be excluded. Therefore, I have decided to include in this list all those writings which, from an exclusive view-point of Gujarat, contain discussions on Brahmanical Philosophy and religious sects like Vaishnava, Shaiva, Shakta and other minor sects, which bear some relation to their spreading in Gujarat, or their effect on history, society and literature of Gujarat.

Again I have not deemed it proper to include in this list, poetic and literary discussions on the works of Narasinha, Dayārāma and others or discussions on the lives of these poets. But I have included those books and papers which discuss religious and philosophical beliefs of these poets.

It is hardly necessary to say that this is not an attempt to provide a list of religious and philosophic literature as such. Of course, for those who need, enough information regarding

particular subjects would be found from the books and essays cited here.

For the convenience of students and scholars, I have placed in the beginning a list of authoritative general books on Brahmanical religions and philosophy.

STANDARD BOOKS ON RELIGIONS AND PHILOSOPHY OF THE HINDUS

1. *Essays on the Religion of Hindus* by H. H. WILSON. New edition, 1861.
2. *Religious Thought and Life in India* by MONIER WILLIAMS, 1883.
3. *Religions of India*, by E. W. HOPKINS, 1894.
4. *Religions of India* by A. BARTH, 1882.
5. *Comprehensive History of the Religion of the Hindus*, 3 Vols. By D. PAL, 1903-05.
6. *Shiva and Sakhti*, 2 vols. by D. PAL, 1910.
7. *Vaishnavism, Saivism and other minor religions* by R. G. BHANDARKAR, 1913.
8. *An outline of the Religious Literature of India*, by J. N. FARQUHAR, 1920.
9. *Religious Life in India*, by J. N. FARQUHAR, 1916.
10. *Modern Religious Movements of India*, by J. N. FARQUHAR, 1915.

(There is no reference in this book to the Modern Religious movements in Gujarat.)

11. *Hinduism and Buddhism*, 3 vols., by Sir CHARLES ELIOT, 1921.
12. *Theism in Medieval India*, by J. E. CARPENTER, 1926.
13. *Indian Philosophy*, by S. RADHAKRISHNAN.
14. *History of Indian Philosophy*, 5 vols., by DAS GUPTA, 1921.
15. *History of Indian Philosophy*, 2 vols. (Gujarati) by N. D. MEHTA, 1924-26.

GENERAL LITERATURE ON RELIGION AND PHILOSOPHY IN GUJARAT

1. *Bombay Gazetteer*, Vol. IX, pp. XXXIV and XXXV contain a general list of religions prevalent in Gujarat. Then different chapters are devoted to higher communities like Brahmana, Kshatriya, Farmers, Artisans, etc. ; and lower ones like

Koli, Bhil, Nayakada, etc., and therein religions of these various communities are described. The XIV chapter deals with the religious beliefs of the Gujarati people and Appendix 'C' contains a description of various religious sects and the number of their followers according to the census of 1872 A.D.

2. *Gujārat Sarvasangraha* (all about Gujarat). Prepared by Kavi Narmadashanker Lalshanker from the Gazetteer, 1887. The descriptions of religions though based on Gazetteer, IX, Part I, is not so detailed and complete as in the latter.

3. *Outlines of the Religious History of Gujarat* (Gujarati), by D. B. Diskalkar—an essay printed in the History Section of the Report of the seventh Gujarati Literary Conference held at Bhavnagar in 1924.

4. *The State of Religious and Philosophic Literature in Gujarat* (Gujarati), by Divan Bahadur N. D. Mehta—an essay printed in the Religion and Philosophy section of the Ninth Gujarati Literary Conference held at Nadiad in 1928.

LITERATURE REGARDING VAISHNAVISM.

5. *A short History of Vaishnavism* (Gujarati), by Durgashanker K. Shastri, 1917—published by the Forbes Gujarati Sabha. The second edition is in the Press. This book deals with Vaishnavism prevalent in Gujarat and its effect on Gujarati Literature. The chief treatment, of course, pertains to the evolution of Bhakti mārga from its beginning to date.

6. (a) *Gujarati Sāhitya* (Gujarati) Vol. V. edited and published by Sahitya Sansad in 1929.

(b) Some interpretations of Beauty (Gujarati), by K. M. Munshi.

Both these volumes contain an essay on Bhakti and Gujarati Literature, by K. M. Munshi, dealing with the effect of Bhakti, particularly Vaishnavite Bhakti on Gujarati Literature.

7. *Introduction to Harilāl Sodashakalā*, by Ambalal B. Jani, B.A., published by Gujarat Vernacular Society in 1928. This book also contains discussions on the effect of Bhakti, particularly Vaishnavite Bhakti, on the literature and society of Gujarat.

8. *The Vaishnavas of Gujarat*, by Dr. N. A. Thoothi, 1935, containing detailed discussions on the Vaishnavas of Gujarat from a religious and sociological view-point.

LITERATURE REGARDING VALLABHA SECT.

9. *History of the sects of Maharajas or Vallabhacharyas in Western India*, 1865.

In Mahārāja-Libel-Case it was alleged that some of the Maharajas were immoral and that Vallabhāchārya the founder of Pushti Mārga and his grandson Gokulnathaji preached immorality. This book deals with the allegation and the details of the Mahārāja-Libel-Case.

10. *Siddhanta Rahasya*, by Vallabhāchārya with eleven commentaries ; editors and publishers ; Mulchand T. Telivala and Dhirajlal V. Sankalia, 1980, v.s. In the introduction to this Sanskrit Book, Mr. Telivala has shown that the allegation on this book as well as on its commentary, as put forward in Mahārāja-Libel-Case is unfounded.

11. "*Venunāda-Pushtimārgiya*" a monthly magazine, edited by Mulchand T. Telivala, 1878-79 v.s.

Vols. I, II, Nos. 10, 11 and 12 of this magazine contain a reply to the above allegation and an explanation of Gadya Mantra.

12. *Shuddhāita Bhakti Mārtanda*, edited by Vasantarāma H. Shastri of Ahmedabad, Vol. of 1990 v.s. contains some historical material of Pushti marga in Gujarati.

13. *The current of Bhakti in medieval period*—a translation by Mahashanker Indrajī of the lectures delivered by Kshiti Mohan Sen in Calcutta University. Published in "*Buddhi Prakāsha*" July-September 1932 and January-March 1935. These lectures refer to the saints of Gujarat also.

14. *Saints of Sorath*, by Jhaverchand Meghani, 1928.

15. *Bhajanik Saints of Gujarat*, by Jhaverchand Meghani—an article published in "*Buddhi-Prakāsha*" Oct.-Dec. 1932 and April, 1933.

POET SAINTS OF GUJARAT.

16. *Narasinha* and *Mira*. Whence those flames? The discussion in the Presidential address of the First Gujarati Literary Conference, by Govardhanarama M. Tripathi regarding the origin of the religious flames in Narasinha Mehta and Mirabai.

17. "*Vasanta*", a monthly, for Shravan and Bhādrapada 1961 v.s. contain criticism of the statements of G. M. Tripathi

by the editor A. B. Dhruva who suggested that Narasinha might have been influenced by Chaitanya.

18. (a) Bhakti literature of the times of Narasinha. An essay submitted to the Eighth Gujarati Literary Conference in Bombay in 1926 A.D.

(b) *The riddle of Narasinha Mehta*, an article in "Gujarat" Shravana, 1982 v.s. Both these articles by K. M. Munshi attempt to show that Narasinha has been influenced by the Shuddha Bhakti of Chaitanya and therefore the date of Narasinha should be brought nearer to the present times.

19. *Thoughts on the Riddle of Narasinha Mehta*, by Durgashanker K. Shastri, articles in "Prasthanā," Vaishakha and Ashadha, 1983 v.s. attempting to prove that the influence of Bhāgavata and Gītā Govinda is obvious on the poetry of Narasinha and that there is no influence of Chaitanya.

20. *Narasaiya, the Devotee of Hari* : by K. M. Munshi 1933 : the author has attempted to answer the criticisms on his article, the Riddle of Narasinha Mehta.

(I have not here included articles discussing simply the date of Narasinha Mehta, written by Ambalal B. Jani and Natavarlal I. Desai.)

21. In support of the devotion of Narasinha—an article by Natavarlal I. Desai in "Buddhi-Prakasha" Vol. 182 No. 2.

22. *Mirabai*—an article by Tanasukharama M. Tripathi in Brihat Kavya Dohan, Vol. VII.

23. *Aksharadeha of Kavi Dayarama*, by G. M. Tripathi, 1907. Discussions on the elements of Bhakti, Dhyana, and Yoga in the poems of Dayarama.

24. *Life of the Poet Saint Dayarama*, by Shankarprasad R. Raval, published in 1920 by Narayandas P. Dabhoivala. This book contains a little discussion on the religious beliefs of Dayarama. (It also contains a list of literature on Dayarama up to 1920).

25. *The internal life of Kavi Dayarama*, by Mulchand T. Telivala and Prof. J. C. Shah, 1931, publisher the same as No. 24.

26. *Rasika Vallabha of Kavi Dayarama*. Editor Prof. J. G. Shah, published by Gujarat Vernacular society, 1933. Introductions to Nos. 25 and 26 aim at making it clear that

the devotion in the poetry of Dayārāma is the devotion as laid down in Pushti Mārga or Sakhi Bhakti, and that the allegations on love depicted in Dayaram's poetry by Narmadashanker and others who followed him are improper. It is also made clear that the defence of Dayarama by G. M. Tripathi in "Aksharadeha of Dayarama" is also not without mistakes as it is done without an exact knowledge of the Pushti Mārga.

LITERATURE ON SVAMINARAYANA SECT.

27. *Sahajānandasvāmi* or *Svāmīnārāyaṇa Sect*, by Kishorlal G. Masharuvala, 1979 v.s.

28. *Svaminarayana Sect*, an essay by K. G. Musharuvala published in the Report of the Sixth Gujarati Literary Conference (pp. 154-217) held in Ahmedabad).

29. *Svaminarayana Sect and Gujarati Literature*, by Ishwarlal E. Masharuvala, Part VII of Gujarati Sahitya, Vol. V. This contains criticism of the poetry of poets belonging to Svāmīnārāyaṇa Sect.

30. *Svāmīnārāyaṇa* (English), by Manilal Parekh, 1936.
SHAIVA SECT.

31. *A short history of Shaivism*, by Durgashanker K. Shastri, published by Forbes Gujarati Sabha (2nd edition 1936). This contains a general history of Shaivism, its aspect in Gujarat and its effect on Gujarati Literature.

32. *A short history of Shaivism*, an apparent defect in it : a correspondence from Natavarlal I. Desai, published in Forbes Sabha Quarterly Vol. II.

No. 2, p. 233, discussing the influence of Shaivism on the Gujarati Literature.

33. *History of Khambhat*, by Ratnamanirava Bhimarava published by Khambhat State, 1991 v.s. Appendices A and E of this book contain discussions on the worship of Shiva in Khambhāt in pre-historic times.

WORSHIP OF SHAKTI.

34. *Shakta Sect*, by Divan Bahadur N. D. Mehta, published by Forbes Gujarati Sabha, 1932. This book contains a description of Shakta sect as prevalent in Gujarat also.

35. *Manifestation of Bahucharamata and its reference in Gujarati Literature*, by Ramamohanaray J. Desai, published

by Bhagavatiprasada A. Bhatt, the secretary of the Union of the devotees of Goddess.

SUN-WORSHIP.

36. *Sacred places of Gujarat*, by Durgashanker K. Shastri, published in Padhiar Commemoration series. They contain a description of sun-worship prevalent in Gujarat in the description of Modhera together with the descriptions of the sacred places of Shiva, Vaishnava and Shakta Religions.

37. *Archæological Survey of Western India*, Report by J. Burgess, New Imperial series, Vol. XXXII, 1903. This book also refers to sun-worship while describing Modhera.

PHILOSOPHY.

38. *Poems of Akho*, by Diyan Bahadur N. D. Mehta, published by Gujarat Vernacular Society. This book discusses the philosophy of Akho.

39. *Modern Religious Movements*. An outline of modern Gujarat, Vols. I and II by Hiralal T. Parekh, published by Gujarat Vernacular Society, 1935-36. Vol. I, Chapters 5-10, refer to the influence of Sahajān-and-Svāmi, Vol. II, chapter 4 refers to Prarthana Samaj ; Arya Samaja, Shirman Nrisinhacharya, Shriman Nathurama Sharma and their religious activities.

ADDENDUM.

40. *Kabir Sect*, by Kisansingh G. Chavda, published by Forbes Gujarati Sabha, 1937, contains description of Kabir Sect as prevalent in Gujarat and its influence on Gujarati literature.

SOCIAL AND ECONOMIC STRUCTURE OF GREATER GUJARAT

II. OCCUPATIONS

By

C. N. VAKIL AND M. H. PATEL.

In the first article in this series, we brought together statistics relating to the population of Greater Gujarat. In this article, we propose to give an idea of the occupational distribution of the population. Only the broad general features have been brought out ; a detailed discussion on Agriculture and another on Industry will form the subject-matter of subsequent articles in this series to be published in this journal in future.

"In point of importance the statistics of occupations are perhaps the most valuable of all those obtained at periodical census. At the same time they are undoubtedly the most difficult to collect with accuracy and to compile with precision." These statistics present a picture of the functional distribution of the population on the one hand, and cover the whole field of employment on the other. One defect of such a compilation is that the figures represent the occupational distribution at one given moment of time. But supplemented as these are by the actual publications on industries, factories, labour and allied matters of social importance as well as the researches of economists and sociologists in some branches of the subject, it is possible for those who are interested to pursue the inquiries further.

About the accuracy of these figures, the census commissioners refer to some of the common errors. They are due to the difficulties of judgment in enumeration and classification experienced in the case of (i) principal and subsidiary occupations, (ii) principal earners and working dependents and (iii) vagueness and inaccuracy in the actual returns due to lack of knowledge of what the facts really are.

The system of classification adopted in the census reports is to divide the occupations in four main classes as follows :—

- A. Production of raw material.
- B. Preparation and supply of material substance.
- C. Public Administration and Liberal Arts.
- D. Miscellaneous.

The above main classes are subdivided into 12 sub-classes with 195 different groups. For our study, we have in the table in the appendix, particulars of the three main classes and the sub-classes industry, trade and transport of class B only. On the other hand in the census reports the tabular columns are divided into principal earners, working dependents and subsidiary occupations, each being subdivided into males and females. In the table we have only one column in which figures for the principal earners and working dependents of both the sexes are included.

As such the table in the appendix varies from the usual table of this type, but the aim is to give the salient features in details and the others are included in the body of this article.

The following table will present the working and non-working population. Only those classes of people who earn an income by permanent and regular work for which a return is obtained in cash or kind, are included. As such one, who cooks food at home and a boy who casually looks after his father's cattle are classed as non-working dependents. While a woman who habitually collects and sells firewood or cow-dung and earns an income, and a boy who is a regular cow-herd are earners. Thus it so happens that the females engaged in housework and rearing families are non-working dependents though they are doing work of utmost social and economic significance.

TABLE I (Figures in 000)

	Earners and working dependents		Non-working dependents	
	Number	Percentage of total population.	Number	Percentage of total population.
British Districts of Gujarat..	1,360	42.50	1,864	57.50
Gujarat States'...	795	46.46	916	53.54
Baroda ...	1,211	49.55	1,232	50.45
W. I. States Agency ...	1,553	38.88	2,446	61.12
Gujarat Greater ...	4,912	43.35	6,465	56.65
Bombay Presidency ...	10,294	39.2	15,978	60.98
India ...	153,800	43.59	199,038	56.41
England ...	19,00	47.5	21,000	52.5
U.S.A. ...	—	49.5	—	51.5

The highest percentage of workers are found in Baroda and the lowest in the Western India States. The percentage

of the workers in Gujarat is higher than those for Bombay Presidency, but is nearly equal to that of India. It is difficult to explain whether this is due to the actual method of census enumeration or the type of people.

The following table indicates the occupational distribution of the earners and working dependents.

TABLE II
Percentage of the total earners and working dependents in different occupations.

	Production of raw materials.	Industry	Transport	Trade	Public Administration and Liberal Arts.	Miscellaneous	Total.
Bombay Presidency ...	67-00	11-52	2-11	5-13	3-93	10-35	100
British Districts of Bombay	66-00	12-29	2-01	5-31	4-00	10-39	100
Gujarat & Kathiawar ...	68-96	11-22	1-71	5-16	4-14	8-81	100
British Districts of Gujarat	70-00	12-50	1-76	4-00	3-09	8-65	100
Gujarat States ...	82-11	5-45	0-65	1-90	2-03	7-86	100
Baroda State...	70-08	10-73	1-32	5-53	4-62	7-72	100
Western India States Agency ...	60-00	13-40	2-50	7-60	5-60	10-90	100
India ...	67-3	10	1-5	5-1	2-8	13-3	100
U. S. A. ...	23-9	28-9	7-9	12-5	8-5	18-3	
England ...	—	56	8	—	—	...	

Once again Gujarat and its subdivisions show a characteristic common to all India. A large majority of the people are engaged in production of raw materials to earn their livelihood. One point may be cleared here that the production of raw materials includes production of minerals, but only a negligible proportion is employed in this work in Kathiawar. As such the figures under this column may be taken as representing figures for agriculture only. Analysing the figures it will be observed that Agriculture is relatively more important in the Gujarat States and less important in the Western India States Agency. It is not safe to generalise from this as to the standard of living unless the nature of reward for agricultural work is considered. But in the case of the Agency area, the figures are in consonance with the known facts. Agriculture

is more precarious in this area, than in most parts of Gujarat, and the Census Commissioner suggests that the number of persons supported by agricultural operations in the Agency is probably a sign of lower standard of living.

But this should not lead one to conclude that the soil of the Bombay states is superior. The fact is that the area includes the forest zones of Dharampur and Dang. In such an area the principal occupations are not very paying and the women have to supplement the family income. This will be proved by the following figures :—

TABLE III

	Principal earners.	Working Dependents.	Proportion of W.D. to 1000 earners.
Baroda	634,780	223,148	350
W. I. States Agency	564,317	365,228	645
Dharampur	18,714	33,041	1833
Dangs	6,892	12,697	1857

The above figures strikingly point out that in the forest area there are nearly twice as many working dependents as principal earners.

The next table shows in an interesting manner the distribution in different grades of workers on land.

TABLE IV

Workers of all kinds per mille of total workers

	Gujarat British	Baroda	W. I. S. A.	Bombay Presidency	India.
Non-cultivating proprietors	18	17	23	23	27
Cultivating owners ...	245	420	63	112	184
Tenant cultivators ...	31	71	205	151	235
Agricultural labourers	359	166	246	345	218
Total	653	674	537	631	664

Comparing the figures the agricultural labourers form a considerable proportion of the total workers except in Baroda and India. The number of non-cultivating proprietors as well

as tenant cultivators are fewer in Baroda, the majority being of cultivating earners. It suggests that there are few absentee landlords and consequently fewer middlemen between the tenant and non-cultivator proprietors. In the case of Bombay the figures may have been affected by conditions in Sind. W. I. States Agency seems to have a large number of middlemen between the owners and tenants.

Industry is the next important occupation. The details in Table II will indicate that in each subdivision a larger percentage earn their income from industrial pursuits than the average figure for India. The Western India States Agency leads, followed by British Districts of Gujarat. The case of the Bombay States Agency is obvious.

TABLE V (Figures in 1000)

	Workers in Textile industry.	Other industries.	Total.	Percentage of workers in Textile industry to total.
British Districts of Bombay	403	610	1013	40
British Districts of Gujarat	78	92	170	46
Baroda 	39	91	130	30
W. I. States Agency ...	49	159	208	24

The above table indicates the importance held by the textile industry. But the statistics do not give an idea about the extent to which, textile manufacture is an organised industry or is a cottage industry. The textile industry gives employment to the largest number, but on percentage basis its position varies. In Gujarat it employs no less than 46 per cent. against 34 in the W. I. States Agency.

Referring to Table II again, it will be seen that transport does not play an important role in the field of employment. The statistics are in accord with the state of transportation facilities in the areas concerned.

Trade usually goes hand in hand with industries, except in centres that exist merely as entrepôts. Workers in this class are mainly concerned with industries of exchange. There is nothing particularly distinctive in the distribution of the persons employed in trade. The general features of it are similar to those prevailing in India.

The following table refers to the occupation of women :—

TABLE VI

	Total female population. (in 1000) (1)	Females between 15 and 50 (in 1000) (2)	Female workers (in 1000) (3)	Male workers (in 1000) (4)
Bombay Presidency ...	12,555	6,325	2,707	7,587
British Districts of Gujarat ...	1,461	762	432	928
Gujarat States ...	829	394	289	506
Baroda ...	1,185	601	454	757
W. I. States Agency ...	1,974	869	425	1,128
Greater Gujarat ...	5,449	2,626	1,600	3,319
England ...	—	—	—	—
U. S. A. ...	—	—	—	—

	Female workers to 1000 females (5)	Female workers to 1000 male workers (6)	Female workers to 1000 able bodied females (7)
Bombay Presidency ...	216	370	428
British Districts of Gujarat ...	296	442	567
Gujarat States ...	348	571	734
Baroda ...	383	600	744
W. I. States Agency ...	216	377	490
Greater Gujarat ...	294	485	609
England ...	286	—	—
U. S. A. ...	220	—	—

In matters of occupation of females it may be observed that popular sentiment is averse to women appearing in public and going to earn their livelihood. Even then we find that a fairly large number of women are supplementing the income of their family. This is said to be due to adverse economic conditions. The figures for Baroda are on a different footing because few castes insist on the seclusion of women. The figures for Gujarat States are affected by the inclusion of

large forest areas, whereas we have seen before, the proportion of the working population to the total is also high.

We shall come to the same conclusion by the perusal of column seven in the above table. The other figures do not require comment.

The following tables will give an idea of the different occupations of females.

TABLE VII-a

Distribution of female workers. (in thousands)

	Agriculture.	Industry.	Transport.	Trade.	Public Administration and Liberal Arts.	Miscellaneous.
Bombay Presidency ...	2020	227	14	75	32	339
British Districts of Gujarat ...	347	32	3	5	3	42
Gujarat States ...	246	10	0.3	4	1.3	27
Baroda ...	351	36	3	14	3	47
Western India states Agency ...	295	39	4	12	6	69
Greater Gujarat ...	1239	117	10	35	13	185

TABLE VII-b

Distribution per mille of female workers.

	Agriculture.	Industry.	Transport.	Trade.	Public Administration and Liberal Arts.	Miscellaneous.
Bombay Presidency ...	746	84	5	28	12	125
British Districts of Gujarat ...	803	74	7	12	7	97
Gujarat States ...	854	34	1	14	4	93
Baroda ...	773	79	7	31	7	103
W. I. States Agency ...	594	92	9	28	14	163
Greater Gujarat ...	775	73	6	22	8	116

Once again predominance of agriculture as a means of support is obvious. On a comparison of the figures in tables II and VII-b, as a percentage to total workers of the same sex, a greater proportion of females are engaged in agriculture

than males. Nearly eight per cent of the female working population claim their income from agriculture against ten per cent. from industry, trade, transport and public administration and liberal arts taken together, the remaining ten per cent. being under the miscellaneous group.

From the foregoing analysis we arrive at the following conclusions :—

(1) The proportion of workers to total population of Greater Gujarat is nearly on par with that of India as a whole and compares favourably with that for England and the U.S.A. The economic importance of this class is great as national income depends on them.

(2) The percentage of people supported by agriculture is the highest and that by industry is the lowest among civilised countries. The figures do not bear out the belief that our province is industrially ahead of others. If we examine our foreign trade the causes of this situation will be obvious.

(3) The number of female workers to 1000 females compares very favourably with those of England and the U.S.A. in spite of popular sentiment against female work. It only supports the conclusion that the females have to contribute to the family income due to adverse economic conditions.

(Figures in Thousands)

	1	2	Earners including working dependent.	Non- working depen- dents.	Percentage of Earners to the total population.	6	7	8	9	10	11
		Total				Production of Raw materials.	Industry.	Transport.	Trade.	Public Admi- nistration & Liberal Arts.	Miscellaneous
India	...	352,838	153,800	199,038	43.59	10,360	15,400	2,300	7,900	4,100	20,500
Bombay Presidency	...	26,272	10,294	15,978	39.20	6,800	1,150	206	518	385	1,035
British Districts of Bombay	...	21,803	8,485	13,318	38.91	5,601	1,013	194	455	338	885
Gujarat & Kathiawar (Geographical)	...	11,377	4,912	6,465	43.35	3,388	551	84	253	203	433
British Districts of Gujarat	...	3,224	1,360	1,864	42.50	953	170	24	54	42	117
Ahmedabad	...	1,000	352	648	35.20	178	92	10	19	13	40
Broach	...	334	155	179	46.41	114	11	2	5	5	18
Karia	...	742	299	443	40.30	228	26	2	12	10	21
Panch Mahals	...	454	244	210	53.74	211	10	3	6	4	10
Surat	...	694	310	384	44.67	222	31	7	12	10	28
Gujarat States & Agencies	...	1,711	795	916	46.46	647	43	5	22	16	62
Bombay	...	88	40	48	45.45	24	6	1	2	2	5
Mahikantha Agency	...	518	242	276	46.72	181	22	1	17	5	21
Rewakantha Agency	...	888	394	494	44.37	342	13	1	7	7	24
Bansda	...	49	14	35	28.57	65	0.7	0.1	0.2	0.7	2.5
Dharapur	...	112	70	42	62.50	5	0.6	0.2	0.2	0.4	1
Sachin	...	22	8	14	36.36	20	0.6	0.3	0.2	0.3	6
Dangs	...	34	27	7	79.41	858	130	16	67	56	84
Baroda State	...	2,443	1,211	1,232	49.55	930	208	39	117	89	170
Western India States Agency	...	3,999	1,553	2,446	38.88	127	35	4	18	11	12
Cutch	...	514	207	307	41.05	98	21	4	12	10	29
Junagadh	...	545	174	371	31.93						

સોપારામાં પુરાતત્ત્વાન્વેષણ

[લેખક: રણછોડલાલ ઘ. જ્ઞાની]

સંસાર સઘળો પરિવર્તનશીલ છે. જલ, સ્થળ અને આકાશની સમસ્ત વસ્તુઓ સતત એ પ્રાકૃતિક નિયમાનુસાર બદલાતી જાય છે. પ્રાકૃતિક પદાર્થો, પર્વત, નદી કે પશુપક્ષી અગર મનુષ્ય બધાની જીવનકથા એજ મહા નિયમને આધારે ઘડાયા કરે છે. આજના મોટા શહેરો જેમ કેટલાક વખત પહેલા નિર્જન વન કે મહત્વહીન સ્થળો હતા, આજની ઉન્નતિને શિખરે પહોંચેલી જાતિઓ થોડા વર્ષો પૂર્વે જેમ સાધારણ અગર જંગલી સ્થિતિમાં હતી તેમજ પ્રાચીન કાલમાં ઉન્નતિને શિખરે પહોંચેલી પ્રજા આજે સત્વવિહીન, પદ્દલિત અને પરાધીન અવસ્થા ભોગવે છે. એક વખતના જાહોજલાલીવાળા, ધનધાન્ય અને સંપત્તિથી ભરપૂર પ્રગતિમાન પ્રજાની વસ્તીવાળા મહાન શહેરો આજે નિર્જન કે સાધારણ સ્થિતિમાં હોઈ પ્રજાના સ્મૃતિપટ પરથી લગભગ ભૂસાઈ ગયા છે. તેવીજ સ્થિતિ આજે સોપારાની છે. એક વખતનું પશ્ચિમ હિંદનું મુખ્ય બાર, દેશ વિદેશની વૈભવશાલી પ્રજાથી યુક્ત મુંબઈનું પુરાણામી જગવિખ્યાત શર્પારક આજે પોતાની ઓળખાણ માટે પણ નાળાની સહાય માગે છે.

વસ્તુતઃ મુંબઈમાં વસતી પર્યટી પ્રજા તેમજ અહીં આવજી કરતા અનેક યાત્રીઓ, વિદ્વાનો અને પ્રેક્ષકો પૈકી બહુ ઓછાને ખબર હશે કે આ અર્વાચીન નગરીની આસપાસ અનેક પ્રાચીન અને પુરાણકાલીન મહત્વપૂર્ણ સ્થળો, મહાન તપસ્વી ધર્મોદ્ધારક ઋષિમુનીઓના આશ્રમો, રાજા મહારાજાઓ અગર ધનિક નાગરિકોના પુણ્ય સ્મારક સમા ગુફામંદિરો અને અસ્તવ્યસ્ત થએલા શહેરોના પ્રાચીન અવશેષો અર્વાચીન સ્થળોના ઉદય અને પ્રજાના દૃષ્ટિબિંદુના પરિવર્તનને પરિણામે નિસ્તેજ વદને સુષુપ્ત અવસ્થામાં મલિન અને હીન દશામાં પડી રહેલા છે. આ શ્રેણીમાં આપણે સોપારાને પણ મુકી શકીએ.

મુંબઈની ઉત્તરે ૩૭ માઈલને અંતરે બી. બી. એન્ડ સી. આય. રેલ્વેની લોકલ ગાડીઓના અંતિમ સ્ટેશન વિરાર અને વસઈની વચ્ચેમાં નાળા સોપારાનું સ્ટેશન છે. થાણા જિલ્લાના વસઈ તાલુકામાં તેનો સમાવેશ થાય છે. અતિ પ્રાચીન કાળથી સોપારા સંસારની પ્રજાના પ્રતિનિધિત્વવાળું વેપારઉદ્યોગનું મથક અને હિંદનું મોટામાં મોટું પશ્ચિમી બંદર હતું. ઈજિપ્ટ, બેબિલોનિયા, ગ્રીસ, રોમ અને ઇરાન તથા અરબસ્તાનના વેપારીઓ મોટી સંખ્યામાં સોપારામાં વસતા હતા અને હાંના વેપારીઓ, ધનિકો અને વિદ્વાનો વેપાર રોજગાર, સહેલગાહ કે ધર્મ અને સંસ્કૃતિના પ્રચાર્ય એ દેશોમાં આવજી કરતા હતા, તેના પુષ્કળ પુરાવા મળી આવ્યા છે. હાલની સોપારાની

પ્રભમાં પણ એ જુદી જુદી જાતિઓના સંતાનો અત્યંત પરિવર્તિત સ્વરૂપમાં વસે છે. ઔદ્યોગિક અને રાજનૈતિક દષ્ટિએ પ્રાપ્ત કરેલા મહત્ત્વ ઉપરાંત એક પવિત્ર તીર્થસ્થળ તરીકે પણ સોપારાની ખ્યાતિના પુરાવા પણ હિંદના પ્રાચીન સાહિત્યમાંથી મળી આવે છે.

પૌરાણિક શૂપારિક :—પૌરાણિક કથાઓમાં આ સ્થળનું શૂપારિક છે. તેની ઉત્પત્તિ વિષ્ણુના અવતાર પરશુરામદ્વારા થએલી હોવાથી તેને પરશુરામક્ષેત્ર પણ કહેવામાં આવ્યું છે. તેમણે પશ્ચિમી સમુદ્રને ખસેડી ક્ષત્રીઓના ત્રાસથી દુખી થએલા ઋષિઓ અને બ્રાહ્મણો માટે આ પૃથિવતલ કાઢી આપ્યાનું કહેવાય છે. એ પૌરાણિક કથામાંથી વૈજ્ઞાનિક દષ્ટિએ સમુદ્ર પૂરવાના પ્રાચીન પ્રકારનું અન્વેષણ થાય તો કંઈક નવું જાણવાનું મળે. એનું નામ એની પ્રાકૃતિક પરિસ્થિતિનું હોતક છે. આગલી તરફ સમુદ્રતલની નીચાણથી બન્ને બાજુએથી ઉત્તરોત્તર ઉન્નત થતા ડુંગરો અને પાછલી બાજુના ઉચ્ચ પર્વતને કારણે એના સૂપડા જેવા જણાતા આકારને લીધે અર્થ સૂચક શૂપારિક નામ આપવામાં આવ્યું હતું. વિષ્ણુપુરાણ, રામાયણ, મહાભારત, શ્રીમદ્ભાગવત ઇત્યાદિ પુરાણોમાં તીર્થસ્થળ તરીકે સોપારાનો ઉલ્લેખ આવે છે. અને હા રામચંદ્ર, બળભદ્ર, અર્જુન ઇત્યાદિ અતેકાની કરવા આવ્યાના યાના તથા અનેક ઋષિમુનીઓના આશ્રમો હોવાના ઉલ્લેખ એ પૌરાણિક કથાઓમાંથી ફેરફાર મળી આવે છે. પૌરાણિક નદી વૈતરણી હજી એ નિર્જળ શરીરે સોપારાને આંગણે વહે છે. અને રામકુંડ, પુષ્કરિણી જેવા અનેક પૌરાણિક મહત્ત્વ સૂચક જગાણો પણ હાં પડી ભાંગી સ્થિતિમાં હજીએ વિદ્યમાન છે. પૌરાણિક કથાઓમાંથી ઐતિહાસિક તત્ત્વ શોધી કાઢવાની દષ્ટિએ અન્વેષણ થાય તો કદાચ હાંની પ્રાચીન ભૌગોલિક પરિસ્થિતિનું યથાચિત્ત જ્ઞાન અને એ ત્યાં શહેરના મહત્ત્વનું જ્ઞાન થવાનો સંભવ રહે છે.

જૈન સાહિત્યનું સોપારકનગર :—જૈનોની દષ્ટિએ પણ સોપારા એક પવિત્ર સ્થળ લેખાય છે. પ્રાચીન ભારતમાં જૈનોના ૮૪ ગચ્છ અગર મથકો હતા. તે પૈકી એક સોપારકનગર પણ હતું. હાંના મૂળ જૈન નિવાસીઓ હજી સોપારક ગચ્છના જૈન કહેવાય છે. ૧૪ મી સદીની શરૂઆતમાં થઈ ગયેલા વિદ્વાન જૈન સાધુ જિન પ્રભાસૂરીકૃત પ્રાચીન દંતકથાઓ અને અન્ય અવશેષોને આધારે રચેલા ગ્રંથમાં એ સદીના સોપારાનું વર્ણન પણ છે તેમાં તીર્થંકર ઋષભ દેવના દહેરાના અસ્તિત્વનો પણ ઉલ્લેખ છે. જૈન પુરાણોમાં સોપારકનગરીના રાજા મહાસેનની પુત્રી તિલક સુંદરી સાથે રાજા શ્રીપાલના લગ્નની કથાપણુ આવે છે. હાલમાં હાં જૈનોનું દેહર નથી પરંતુ કેટલીક વાર ખેતરોમાંથી કે અન્ય સ્થળે ખોદકામ કરતાં જૈન મૂર્તિઓ તથા અન્ય અવશેષો મળી આવે છે. સોપારાની પાસે આવેલા નાળા અને અગાશી નામક ગામોમાં જૈન દહેરા છે તેમાં કેટલીક પ્રાચીન મૂર્તિઓ છે અને સોપારામાં ગાસ-તળાવ અને સોનારવાટ આગળથી થોડા વખત પર મળી આવેલી જૈન મૂર્તિઓ પણ સુરક્ષિત રાખવામાં આવી છે.

બૌદ્ધ કથાઓનું સુપારક :—ભગવાન બુદ્ધની જાતક કથાઓમાં આ સ્થળે પૂર્વજન્મમાં એમનો એકવાર બોધીસત્ત્વ સુપારક નામે જન્મ થયાનો ઉલ્લેખ છે. એક વખતના હાંના ધનિક વેપારી અને બૌદ્ધ સાધુઓના ઉપદેશ પ્રભાવિત થઈ ભિક્ષુ

તરીકે દીક્ષા લઈ કાશીવાસ કરવા ગયેલા ભિખુ પુણ્ય ભગવાન શુદ્ધને આગ્રહપૂર્વક પોતાની જન્મભૂમિ સુપારકમાં પધરામણી કરાવ્યાનો પણ ઉલ્લેખ ઔદ્ધ કથાઓમાંથી મળે છે. એમની પધરામણીના સ્મારકરૂપ હાં ઔદ્ધસ્તૂપ અને ભિખુસંઘ સ્થપાયાની વાત પણ એ કથાઓમાંથી મળે છે. આ ઉપરથી એમ અનુમાન થાય છે કે શુદ્ધના જીવનકાળ અર્થાત ઈ. સન પૂર્વની છઠી સદીથીજ હાં ઔદ્ધધર્મનો પ્રચાર સારા પ્રમાણમાં થયો હશે અને વેપારાર્થે આવતા અનેક વિદેશીઓ પણ આ ધર્મથી પ્રભાવિત થઈ ઔદ્ધધર્મોવલંબી બન્યા હશે. ઈ. સન પૂર્વની ત્રીજી સન સુધી એ સ્થળ ઔદ્ધ મથક તરીકે ચાલુ રહ્યું હોય તો નવાઈ નથી અને તેને લીધે એ સમયે સોપારામાં ભિખુસંઘ સ્થાપી ધર્મજ્ઞાવાળો શિલાલેખ પણ સ્થાપિત કર્યો હશે. સમ્રાટ અશોકે યવન (ગ્રીક) ભિખુ ધર્મ રખિખત (ધર્મરક્ષિત) ને સૌરાષ્ટ્ર અને અપરાંત (કોંકણ) માં ધર્મપ્રચારાર્થે મોકલ્યાનો ઉલ્લેખ ઇતિહાસમાં મળે છે અને તેણે હાં આવી સુપારકમાં પોતાનું કેન્દ્ર રાખી આસપાસના પ્રદેશોમાંથી લગભગ ૭૦૦૦૦ જણને ઔદ્ધધર્મની દીક્ષા આપ્યાનું જણાવવામાં આવ્યું છે. આ વર્ણનને આધારે સુપારકની ઔદ્ધ મથક તરીકેની જાહેરાતની નિર્વિવાદ બને છે.

પ્રાચીન લેખોમાં સોપારા :—પશ્ચિમ હિંદના કેટલાક ગુફામંદિરોમાં પણ સોપારાના દાનશીલ સદ્ગૃહસ્થોના દાનને અંગે ઉલ્લેખ જણાય છે. મુંબઈ અને પૂનાની વચ્ચે આવેલી કાલાંની ગુફામાં ઇ. સ. ની પહેલી સદીના લેખ છે જેમાં સોપારાના ભિક્ષુ ધમુત્તરીયના શિષ્ય નંદપુત્ર સત્તમિતે (સત્યમિત્રે) આ ગુફામાં થાંભલો કરાવવા માટે અમુક રકમ દાનમાં આપ્યાનો ઉલ્લેખ છે. લગભગ એજ અરસાની નાશિકની ગુફાઓના એક લેખમાંથી સૌરાષ્ટ્રનરેશ ક્ષત્રપ નહપાનના જમાઈ ઉપવદ્ત સોપારામાં એક ભવ્ય ધર્મશાલા બંધાવ્યાની માહિતી મળે છે. એજ લેખમાંથી સોપારકવાસી રામતીર્થ આગળના ચરક સંપ્રદાયી સાધુઓ માટે નાનગોલ ગામના ૩૨૦૦૦ નાળી-એરીના ઝાડ દાનમાં આપ્યાની વાત પણ પ્રકાશમાં આવે છે. નાના ઘાટના એજ કાળના એક શિલાલેખમાં સોપારાનીવાસી ગોવિંદદાસે એક કુંડ ખોદાવી આપ્યાનો ઉલ્લેખ મળે છે. તેજ પ્રમાણે કનેરી (અસલનામ કૃષ્ણગિરી)ની ગુફાઓના સંખ્યા-બંધ લેખો પૈકી એમાં સોપારાના ભકત સમિક અને ત્યાંના વેપારીની દાનની વાત આવે છે. પહેલો લેખ પહેલી સદીની આખરનો અને બીજો બીજી શતાબ્દિના અંતનો છે. અશોકના ઇ. સ. પૂર્વ ત્રીજી સદીના સોપારાના લેખની આખત તો ઉપર ચર્ચાઈ ગઈ છે. આ ઉપરથી સારાંશ એજ કે ઇ. સ. પૂર્વની ત્રીજી સદીથી ઇ. સની બીજી સદીના અંત સુધીના અર્થાત લગભગ ૫૦૦ વર્ષના સોપારાની ખ્યાતિ સૂચક અનુસંધાનો ઉપલબ્ધ છે. તદુપરાંત મધ્યકાળમાં એ સોપારા બંદર તરીકે વપરાતા હોવાનું અનુસંધાન પણ કોંકણના સિલહાર વંશીય અનંતદેવના શકે ૧૦૧૬ (૧૦૮૪ ઇ.) ના લેખમાંથી મળી રહે છે જેમાં એ રાજાએ પોતાના મંત્રીઓ ભલણ અને ધણુપતે ને શ્રી સ્થાનક (થાણ), એમ્લી (એમ્લ) અને શૂર્પારિક (સોપારા) બંદરેથી આવતા એમના માલ પર કરની માપી આપી છે. બારમી સદીના સિલહાર રાજા અપરાદિત્યના એક લેખમાંથી પણ સોપારના પંડિત તેજકંઠે એ અરસામાં કાશ્મીરમાં થયેલી વિદ્વદ્ધપરિષદમાં કોંકણના પ્રતિનિધી તરીકે મોકલવામાં આવ્યાનો ઉલ્લેખ છે.

વિદેશી અનુસંધાનો :—અત્યંત પ્રાચીન કાળથી ઠેક ૧૫ મી સદીની શરૂઆત સુધી પશ્ચિમ હિંદનું સર્વશ્રેષ્ઠ બંદર સોપારા હોવાથી વિદેશના વેપારીઓની આવજા હોવાથી ઇ. સ. પૂ. ૭૦૦ થી ૧૫ મી સદી સુધીના વિદેશી યાત્રીઓ કે વેપારીઓના વર્ણનોમાં અગર જુદા જુદા દેશોના સાહિત્યમાં સોપારાનો ઉલ્લેખ મળે છે અલખત તેમાં એના નામના અનેક અપભ્રંશ સ્વરૂપો જણાય છે જેમ કે હોપારા, ઓપારા, ઓવીર, ઓશીર કે સુપારા ઇત્યાદિ. બાથબલમાં પણ સોલોમનના વહાણોની ઓશીર બંદરે આવજા અને સોનાની વિપુલ નિકાસનો ઉલ્લેખ છે. ટોલેમીના ભૌગોલિક વર્ણનમાં તેમજ અન્ય રોમન અનુસંધાનોમાં ઓશીરથી સોનું, ઝવેરાત, હાથીદાંત તથા મેર અને વાંદરાના ધમધોડાર વેપારની ચર્ચા છે. તેજ પ્રમાણે પ્રારંભથી માંડીને ૧૧ મી સદીના અરખ વેપારીઓ એ પોતાના સાહિત્યમાં સુપારા નામે આ સ્થળના વિસ્તૃત વર્ણનો લખ્યા છે. બીજી એક મહત્ત્વની બાબત તરફ આ તકે વિદ્વાનોનું ધ્યાન આકર્ષવા જેવું છે. સાધારણ રીતે એવી માન્યતા છે કે હિંદમાં વાસ્કો-ડિગ્મામાના આગમન પછી ૧૬ મી સદીની શરૂઆતમાં ખ્રિસ્તીધર્મ આ દેશમાં ફેલાયો, પરંતુ તે ભૂલ છે. ઇ. સ. ૧૩૨૨ ના ખ્રિસ્તી પાદરી જર્ડિનસના પ્રવાસવર્ણનમાં આવે છે કે એ અરસામાં સોપારા શહેરમાં સેન્ટ થોમસનું મોટું ખ્રિસ્તી દેવળ હતું. એ ખ્રિસ્તીઓ થાણા જિલ્લામાં પ્રચાર કરવાં જતા ત્યાં ધાર્મિક બાબતસર મુસલમાનો સાથે એમને અથડામણમાં આવવું પડતું. તેના પ્રવાસ દરમિયાન એના ચાર સાથીઓને મુસલિમેએ થાણામાં મારી નાખ્યાથી ભર્ય તરફ દૂર કરતા પહેલા તેણે પોતાના મિત્રોના શબોને સોપારે લાવી ખ્રિસ્તી વિધીપ્રમાણે એમના કબરસ્તાનમાં દાખા હતા. તેણે પોતાના પ્રચારને પરિણામે ત્યાર પછી ઘણાઓને ખ્રિસ્તીધર્મની દીક્ષા આપ્યાનો પણ ઉલ્લેખ કર્યો છે. આ ઉપરથી ચોક્કસ થાય છે લગભગ ૧૪ મી સદી પહેલાંજ ખ્રિસ્તી-ધર્મ હાં ફેલાયેલો હશે.

પુરાતત્ત્વવેપળની શરૂઆત :—ઈ. સ. ૧૮૮૨ માં આ સ્થળે ગૌરવાન્વિત ગુજરાતી સદ્ગત પંડિત ડૉ. લગવનલાલ ઈંદ્રિજીએ પ્રાચીન અવશેષોની શોધ શરૂ કરેલી. પ્રાચીન સાતિત્યમાં આવેલા આ સ્થળના મહત્ત્વપૂર્ણ ઉલ્લેખોના પૂર્ણ જ્ઞાન સાથે તેમણે સોપારાની મુલાકાત લીધી. હાં આવેલા પ્રાચીન અવશેષોનું અન્વેષણ કરી સોપારાની પ્રાચીન જાહેજલાલીને આધુનિક યુગમાં પહેલી વાર પ્રકાશમાં આણી. તેઓ એટલેથીજ ન અટક્યા પરંતુ કંઈક નિર્ણયાત્મક પુરાવાની શોધમાં વારંવાર હાં આવ્યા. ૬૬ નિશ્ચયવાળા પુરુષાર્થો જોતોને પ્રભૂ અવશ્ય સહાય કરે છે. તેમને બ્રાહ્મી લીપિના એનેક લેખો મળ્યા આવ્યા. તેમાંથી એક તો અશોકની ધર્મજ્ઞાનો ભાગ હોવાનું માલમ પડ્યું. સ્થાનિક જનોની બેદરકારીને લીધે આ પથર પંડિત થઈ સ્થાનબ્રષ્ટ થઈ ગયો. પરંતુ હજીએ અશોકની આઠમી ધર્મજ્ઞાના માત્ર ૩ જેટલા ભાગના લેખવાળા એ પથર અશોકકાલીન સોપારાના મહત્ત્વના પુરાવારૂપ મુંબઈના પ્રિન્સ એફ વેલ્સ મ્યુઝિયમમાં સુરક્ષિત છે જે મુંબઈની રાયલ એશિયાટિક સોસાયટીદ્વારા પ્રાપ્ત થયો છે.

એજ વર્ષની ઈસ્ટરની રજાઓમાં એ પુરાતત્ત્વવિશારદ બીજી સફળતા મેળવી સ્થાનિક બરડ રાજાના કોટ નામક સ્થળના ખંડેર જોતા એમને એક ચોક્કસ લાગ્યું કે

હાં પ્રાચીન બૌદ્ધ સ્તૂપ ભૂગર્ભમાં સંતાએલો હશે. ભારતવર્ષમાં આવેલા અન્ય બૌદ્ધ સ્તૂપોની રચનાના દર્શન અને અન્વેષણની અનુભવી દષ્ટિએ સદ્ગત પંડિતે પોતાના માટે એ સ્થળના સ્તૂપનું કદપનાચિત્ર દોરી તેના મધ્ય ભાગે બૌદ્ધ અવશેષો હોવાનું અનુમાન કરી અત્યંત બુદ્ધિપૂર્વક ચોક્કસ ભાગમાં ખોદકામ ચાલુ કર્યું. ઉપલા માટીના થરો ભેદી મધ્યભિદુએ પહોંચતા મોટી મોટી અશોકકાલીન ઈંટોનું પાકું ચણતર જણાયું—આગળ જતા એ ત્રણ શીટનો ચોરસ પોલો થાંપલો નીકળ્યો. તેમાંથી લગભગ ૧૨ શીટ સુધીની માટી કાઢ્યા પછી એક પથરનો મોટો ગોળ ડાબડો મળી આવ્યો. આ ડાબડાનું પથરનું ઢાંકણ ઉઘાડતા અંદર એક ત્રાંબાનો ડાબડો અને તેની આસપાસ આઠ બૌદ્ધમૂર્તિઓ જણાઈ અને તેમની ઉપર સુગંધી દ્રવ્ય અને પુષ્પાદિના ચિન્હો જણાયા. ત્રાંબાના ડાબડાની અંદર પાષાણ ચાંદી અને સ્કટિક તથા સોનાની ડાબડીઓ એક બીજાની અંદર અનુક્રમે ઉતરતા આકારની મળી આવી અને તેમાં સોનાના ફળ, મણિમુકતાના મણકા તથા સોનાની બુદ્ધની મૂર્તિ પછી છેક અંદરની ડાબડીમાંથી માટીના ૫૩ જેવા ટુકડા મળી આવ્યા. શ્રી. પં. લગવાનલાલની ધારણાનુસાર આ અવશેષો લગવાન બુદ્ધના ભિક્ષાપાત્રના ખંડિત અંશોના હશે જેની પવિત્રતા અને મહત્ત્વને લક્ષમાં લઈ કાષ્ઠક ધાર્મિક બૌદ્ધ મતાવલંબીએ આ સ્તૂપ બંધાવ્યો હશે અને તેમાં આ અવશેષો સંભાળપૂર્વક સુરક્ષિત રાખ્યા હશે. એ સજ્જનના નામ અને સમય વિષે ચોક્કસ પ્રમાણ ઉપલબ્ધ ન થયું પરંતુ તેમાંથી મળી આવેલા ગૌતમીપુત્ર સાતકર્ણિના ચાંદીના સિક્કા અને ઈંટોના આકારને આધારે લગભગ ઇસવી સત્તવી બીજી સદીમાં બંધાયેલું ચોક્કસ અનુમાન થઈ શક્યું છે. આ બંધાવ અવશેષો તેમજ પેલા અશોકના શિલાલેખ અને ત્યાંના પ્રાચીન અવશેષો તથા મહત્ત્વ વિષે મનનપૂર્ણ લેખ એમણે પોતે મુંબઈની રાયલ એશિયાટિક સોસાયટીની પત્રિકાના ૧૫ માં પુસ્તકમાં પ્રકાશિત કરાવ્યો હતો જેને આધારે ત્યાર પછીના વિદ્વાનો એ સંશોધન ચાલુ રાખ્યું હોત તો કદાચ અત્યાર સુધીમાં ઘણી બાબતો પ્રકાશમાં આવી હોત. આ શોધ પછી જુદા જુદા સદ્ગત પંડિતનું અવસાન થઈ ગયું અને સોપારા પાછું વિસારે પડ્યું હતું. પરંતુ ગુજરાત સંશોધન મંડળની સ્થાપના પછી થોડાજ સમયમાં ઇતિહાસ અને સંસ્કૃતિ સમિતિના મંત્રીનું ધ્યાન આ તરફ દોરાયું અને તેમણે પહેલા જાતે આ સ્થળના અવશેષો અને ઇતિહાસનો અભ્યાસ કરી મંડળના સભ્યોની આ સ્થળે મુલાકાત ગોઠવી. તેમાં મંડળના પ્રમુખ શ્રી. ન્યાયમૂર્તિ હરસિદ્ધલાઈ દીવડિયા, મંત્રી પ્રો. ચંદુલાલ વઢીલ, કાશાધ્યક્ષ શ્રી. પોપટલાલ શાહ અને અન્ય વિદ્વાન સભ્યો મળી એકંદર ચાળીસેક જણે હાજરી આપી હતી. આ લેખના લેખકને એનું મહત્ત્વ સમજાવવા અને બંધાને ફેરવી સ્થાનિક અવશેષો બતાવવાનું સૌભાગ્ય પ્રાપ્ત થયું. આ મુલાકાતના વૃત્તાંતના વર્તમાનપત્રોના પ્રકાશન સાથે પુરાતત્ત્વ-ખાતાના અધિકારીઓનું તે તરફ ધ્યાન આકર્ષવામાં આવ્યું. સદ્ભાગ્યે એ ખાતાના ડિરેક્ટર જનરલ રાવબહાદુર કાશીનાથ દીક્ષિતે એ બાબતમાં રસ લઈ પોતે ત્યાર પછી મુંબઈ આવ્યા ત્યારે આ સ્થળે આવેલા અવશેષોની મુલાકાત લીધી અને કેટલાક સ્થળો અન્વેષણ માટે પસંદ કર્યાં. એ ખાતાના પશ્ચિમ વિભાગના અધિકારીદ્વારા એ સ્થળો હિંદના પ્રાચીન અવશેષ સંરક્ષણ (Ancient Monuments

Preservation Act) ના કાયદાની રૂએ સરકારી અમલ હેઠળ સુરક્ષિત બહેર કરવામાં આવ્યા અને આ વર્ષની શરૂઆતમાં અન્વેષણની પુનરાવૃત્તિનો પ્રારંભ થયો.

પુનરોદ્ધારનો પ્રારંભ

સને ૧૯૩૯ ની ૧૭ મી જાનેવારીએ પુરાતત્વ-ખાતા તરફથી એ ખાતાના પશ્ચિમ વિભાગના અસિસ્ટેન્ટ સુપરિન્ટેન્ડેન્ટ મી. મુહમ્મદ મુનીર કુરેશીની દેખરેખ નીચે એજ બરકડકાટ આગળ ખોદકામ શરૂ કરવામાં આવ્યું. એમની ઇચ્છાનુસાર લેખકને પણ એ ખનનકાર્યના લગભગ દોઢ માસના સમય દરમિયાન ઉપસ્થિત રહેવાનું સૌભાગ્ય પ્રાપ્ત થયું. ડૉ. ભગવાનલાલ ઇંદ્રજીની આ સ્થળે કરેલી ઉપર્યુક્ત બૌદ્ધ અવશેષોની શોધને કારણે આ જગ્યાએથી બૌદ્ધસ્તૂપની પહેલાંથીજ આશા રાખવામાં આવી હતી અને તે ખરી ફરી.

આ ટેકરીની મધ્યમાં જે ટિંબો હતો તેની ચારે બાજુએથી માટીના થર સાફ કરી જેતાં નીચે પાકી ઇંટનું ધુમટાકાર ચણતર જણાયું. આ વ્યવસ્થિત ઇંટોને એમને એમ રહેવા દઈ બાજુ બાજુથી ખોદકામ કરતા લગભગ ૨૨ ફૂટ જેટલી નીચાણથી જે ગોળ ઓટલો નિકળ્યો તે તદ્દન સારી હાલતમાં મૂળ ચણાએલી ઇંટોવાળો જણાયો. આ ઓટલાની ઉંચાઈ લગભગ ૪ ફીટ જેટલી છે. એને ચારે બાજુથી સાફ કરતાં તેનો ઘેરાવો લગભગ ૨૭૨ ફીટ જેટલો માલમ પડ્યો હતો. આ ગોળ ચોતરાની ઉંચાઈ ૪ ફીટની છે. તેની ઉપર ધુમટની ઇંટો ગોઠવાએલી જણાય છે. પરંતુ તે ઘણી જગ્યાએથી ખંડિત છે. અને ચારે બાજુથી એની બાહ્યવરણની સાફ પોલિશવાળી ઇંટો પડી ગએલી છે. લગભગ આઠેક ફીટ જેટલી ઉંચાઈ સુધીનો એજ મોટી ઇંટોનું ચણતર જણાય છે. પરંતુ ત્યાર પછી સેજ નાની ઇંટો છે તે કદાચ પાછળના કાળમાં ઉમેરાઈ હશે. આ ચણતર પણ લગભગ આઠેક ફીટ જેટલી ઉંચાઈ સુધી જાય છે. એમ એકંદરે ૨૦ થી ૨૨ ફીટની ઉંચાઈવાળો આ ખંડિત સ્તૂપ આ વર્ષના ખનનને પરિણામે પ્રકાશમાં આવ્યો છે જે હિંદના ઇંટના બૌદ્ધસ્તૂપોમાં સૌથી મોટો છે. સ્વ. પ. ભગવાનલાલ ઇંદ્રજીએ જે મધ્યસ્થાને આવેલા પોલા થાંભલામાંથી પેલી બૌદ્ધ અવશેષોવાળી પેટી કાઢી હતી તેમાં પણ લગભગ ૩૦ ફીટની ઉંડાણ સુધી ખોદકામ કર્યા છતાં કોઈ જાતના આવશેષો મળ્યા નહીં. અમુક ઉંડાઈ સુધી માટી નિકળી પછી પાકી ઇંટોનું ચણતર આવ્યું અને તેની નીચે દરિયાની રેતી જેવી રેતી નિકળવા માંડી એટલે કેઈ પણ મળવાની નિરાશા થઈ અને એ કામ બંધ થયું. એ થાંભલો ફરીથી જેનીને તેવી હાલતમાં ભરી દઈ એની ઉપરના ભાગની ઇંટોનું ચણતર વ્યવસ્થિત કરી તેની ઉપર આચ્છાદન દ્વારા સ્તંભ સુરક્ષિત કરવામાં આવ્યો છે.

આ સ્તૂપના ખોદકામ દરમિયાન આશ્ચર્યની વાત છે કે એકે બૌદ્ધમૂર્તિ કે બૌદ્ધ-ચિન્હ અગર શિવપાળો પથ્થર મળી શક્યો નથી. માત્ર કેટલાક ગોળા મળ્યા જેનો શો ઉપયોગ થતો હશે તે હજી ચોક્કસપણે કહી શકાય તેમ નથી. સ્તૂપની આસપાસ પ્રદક્ષણ પથ છે અને તેની આગળ ફરસબંદીઓ નીકળી છે જે આ સ્તૂપમાંથી થરેલી અગર એની આસપાસની મૂળ પડી ગએલી ઇમારતોમાંથી લઇને વાપરેલી લાગે છે. બે ત્રણ કે ચાર થરની ફરસબંદીની નીચે માટી અને રોડા વિગેરેનો ભરાવ છે, તે પરથી એમ લાગે છે કે આ ફરસબંદીઓ પાછલા કાળમાં કોઈ બૌદ્ધ સાધુઓ કે બીજાઓએ પોતાના રહેવા માટે

બનાવેલા ઓરડાની અવશેષરૂપ છે. હાંના રિવાજ પ્રમાણે ઉપરનું મકાન લાકડાનું બંધાયું હશે અને તે નાશ પામતા હવે માત્ર એ ઓરડાઓની ફરસબંદી બાકી રહે છે. દક્ષિણ તરફ ઈંટના ચણતરવાળા એ સ્તૂપ પણ મળી આવ્યા છે જેમાંથી એકની અંદરથી કાંઈ નાના કદના માણસના કે છોકરાના શરીરના હાડકા મળી આવ્યા હતા જે બળેલા નહિ હોવાથી અનુમાન થાય છે કે કાંઈએ ધનલોભે હત્યા કરી હાં શરીર દાટી દીધું હશે. મૂળ આ નાના સ્તૂપો કાંઈ બૌદ્ધ સાધુઓના સમાધિરૂપ બન્યા હશે. પશ્ચિમ દિશા તરફથી તેમજ ઉત્તર બાજુએથી કેટલીક પથ્થરની શિલાઓ મળી આવી છે જે જોતાં એમ લાગે છે કે મુસલિમ કાળમાં હાં કાંઈ એ જાવણી નાખી પથ્થરનું મકાન બાંધવાનો પ્રયાસ કાર્યો હશે—ઉત્તર તરફ પણ એક ફરસબંદીવાળો ઈંટનો ચોતરો નિકળ્યો છે જેમાં થાંભલા માટેના ગોળ ખાડા પણ છે.

આ કાર્ય લગભગ પુરૂ થઈ રહેતા વર્ષાઋતુમાં પાણીના નિકાસ માટે માર્ગ કરવા જતા ચારે દિશાએથી પથ્થરની શિલાઓના મોહરા અને વચમાં સાધારણ પથ્થર અને માટીના ભરાવવાળી લગભગ આઠેક ફુટ પહોળી ભીંત અગર કોટના અવશેષો મળી આવ્યા જેને આધારે આ સ્થળની ચારે બાજુએ કોટ હશે એમ ચોક્કસ થાય છે અને તેથીજ કદાચ ૫૩૩ રાજના કોટનું નામ આ સ્થળને મળ્યું હશે.

આ કોટનો આકાર અંદર આવેલી જગ્યાના પ્રમાણમાં કંઈક વધુ પડતોજ લાગે છે. આવી કિલ્લાબંદીવાળી જગ્યામાં કોણ રહેતું હશે? ૫૩૩ રાજ કોણ હશે? આ કોટનો બંધાવનાર કોણ હશે? અને તેણે શા ઉદ્દેશથી આટલી નાના વિસ્તારવાળી જગ્યાની આસપાસ આવી જડાઈવાળો કોટ બંધાવ્યો હશે? ઇત્યાદિ પ્રશ્નો ઉઠેલ માંગે છે. આ કોટના કાળ વિષે એમાં વચલા ગાળા પૂરવા માટે વપરાયેલા શિલ્પવાળા પથ્થર અને ખંડિત મૂર્તિઓ (જે લગભગ ૮ થી ૧૨ મી સદી સુધીની જણાય છે) ને આધારે કહી શકાય કે આ મુસલિમ કાળમાં આસપાસના તળાવના કિનારાની દહેરીઓ તથા અન્ય હિંદુ મંદિરોના ખંડિત અવશેષોનો ઉપયોગ કરી બાંધવામાં આવ્યો હશે. તે લગભગ ૧૪ મી સદીનો હશે. જે એમ હોય તો અલાઉદ્દીન ખિલજીના વિજય પછી અગર ગુજરાત સુલતાનોના અમલ દરમિયાન મુસલિમ સેનાના અમુક સ્થાનિક અધિકારીઓએ આ કોટ બંધાવ્યો હશે અથવા તો મુસલિમ આક્રમણ પોતાના બચાવ કરવા માટે કાંઈ સ્થાનિક હિંદુ કે બૌદ્ધ અધિકારીએ બંધાવ્યો હશે. આ પ્રમાણેના અનુમાનો સિવાય હાલતો કંઈ વધુ થઈ શકે એમ નથી.

મળી આવેલા અવશેષોમાં રંગીન માટીના વાસણ કે ચીનાઈ માટીના વાસણના કકડાં તથા ચૂનાના ઢેપા પુષ્કળ પ્રમાણમાં મળી આવ્યા છે તે આ સ્થળે આવેલા ઇરાન અને મધ્યએશિયાના વેપારીઓ દ્વારા આયાત થયા હશે. તદ્દપરાંત થોડા ઘણા નકશીદાર પથ્થર મળ્યા છે તે હિંદુ મંદિરોના છે. ઈંટના ચોક્કસ આકારની કિનારીઓ અને ખાસ નકશીવાળા અવશેષો મળ્યા છે તે કદાચ મૂળ બૌદ્ધ ધર્મારતો કે સ્તૂપ-માંથી સરી પડેલા હશે એમ લાગે છે.

આ પ્રમાણે આ વર્ષે ૫૩૩ રાજના કોટનામે ઓળખાતા સ્થળેથી બૌદ્ધસ્તૂપ અને તેની આસપાસ વસવાટના ચિન્હો દાખવતી ફરસબંદીઓ અને ફરતા કોટના અવશેષો પ્રકાશમાં આવ્યા છે. આવતે વર્ષે પાછું સરકારી પુરાતત્વખાતા તરફથી

આ જમીનના બાકીના ભાગમાં ખોદકામ થવાની આશા છે. ત્યાર પછી કદાચ કંઈક ચોક્કસ નિર્ણય પર આવી શકશે. ઉપર્યુક્ત બરડકોટ ઉપરાંત બીજી પણ કેટલીક પ્રાચીન વસ્તુઓ અને સ્થળો સોપારાની પુરાતત્વાન્વેષણની દૃષ્ટિએ મુલાકાત લેનારને માટે અગત્યની છે.

અન્ય પ્રાચીન સ્થળો

રોશનથી જતાં રસ્તામાં બન્ને બાજુએ મોટું મેદાન આવે છે. તે જૂના દરિયાની સુકાઈ ગયેલી ખાડી છે અને ડાબી બાજુએ છેવટના ભાગમાં ભટાળાથી એકાદ માઈલને અંતરે જૂનું બંદર પણ છે. ત્યાંથી હજીએ નાના મજવાઓ દ્વારા માસની આવજન થાય છે. આ બંદરની પાસે થોડે આવે જૂનું કબરસ્તાન છે. અને મુસલિમ કાલીન જુમામસજિદના અવશેષો વિગેરે માટે ઝીણા અવલોકનની જરૂર રહે છે.

હાલની જુમામસજિદની પાસે પુષ્કરણી કુંડ છે. તદુપરાંત, રામકુંડ કે રામતીર્થ, ચંદનતળાવ, શ્રીમોલીતળાવ, ગાસતળાવ, ભટાળાનો તળાવ, ઇત્યાદિ જલાશયો તથા આસપાસની જમીનથી સડકની નીચી સપાટી અને સડકની બન્ને બાજુએ આવેલી વૃક્ષરાજ્યેથી હંમેશ સડકોપર જવાઈ રહેતી શીતળ છાયા અને શાંતિ પ્રાચીન ભારતની વિશેષતા હતી. અને તેનો અનુભવ હાં થઈ શકે છે. તળાવોમાં ગાસતળાવ સૌથી મોટો છે. અને એની આસપાસથી જૂની મૂર્તિઓના બંધેલા ઘાટ ઇ. કેટલીકવાર નિકળે છે. આ તળાવની પાળના એક પથરપર તેમજ પાસેના ગાસગામમાંના કેટલાક પથરો પર બ્રાહ્મી લીપિવાળા લખાણો છે. તદુપરાંત ઓટલાઓ અને ભીતિમાં ઠેર ઠેર પ્રાચીનશિલ્પના અને મૂર્તિઓના અવશેષો ચણાએલા જણાય છે.

વાકલોકેકરી પણ હાંથી થોડેક છેટે છે. જ્યાં આગળ ઉપર જણાવેલ લિખ્ખુ પુણ્ણે ભગવાન શુદ્ધને ઉતાર્યા હતાં ત્યાં તેમણે વાકલ ઋષિને અને બીજાએ યૌદ્ધ ધર્મની દીક્ષા આપી અને હાં કેટલીક વિદ્યાઓએ એમના નામ અને વાળ લઈ તેપર સ્તૂપ બંધાવ્યાનો ઉલ્લેખ મળે છે. આ સ્થળે અત્યારે તો ટેકરી અને તેની પર કરંડ વૃક્ષોની ઝાડી છે. સાફ કરી ખોદકામ થાય તો કદાચ કંઈક અવશેષો મળે તો મળે. તદુપરાંત સુનારવાટ નામક સ્થળે પણ કોઈ મંદિર દટાઈ ગયેલાના ચિન્હો છે. આની પાસેથી જૂના સોપારાની હદ શરૂ થાય છે. રસ્તામાં એક દરગાહ છે. ત્યાં પણ મહિશાસુર મર્દિનીની અને અન્ય મૂર્તિઓના કંકડા તથા જૂની દીપમાલિકાનો થાંભલો જણાય છે. જે દરગાહના કામમાં આવે છે. તે શિવાય અસ્તતત્વસ્ત સ્થિતિમાં ઘણાં અવશેષો સર્વત્ર પથરાયેલા જણાય છે.

સાથી વધુ પ્રેક્ષણીય વસ્તુઓ હાંના ચક્રેશ્વર તળાવ પાસે આવેલા ચક્રેશ્વરના મંદિરમાં છે. આ મંદિરની ઇમારત નવી છે. પણ અંદરની મૂર્તિઓ જૂની છે. બાજુમાં રામમંદિર તથા મોરેશ્વર બોવાની સમાધિ છે. એ બધાપર માલકી અધિકાર શ્રી. ગોવિંદ મોરેશ્વર જોશીનો છે જે એ નજીકમાં જ રહે છે અને એમના પિતાશ્રીના વખતથી સોપારા અને ગાસમા મળેલી સુંદર સુંદર મૂર્તિઓ અને પાળિયા ઇ. લાવી લાવીને આ મંદિરમાં સંગ્રહિત કર્યા છે. તેમાં ૯મી સદીથી માંડીને ૧૩ મી સદી સુધીની બ્રાહ્મણીય મૂર્તિઓ છે. એ મૂર્તિઓમાં બ્રહ્મા, સૂર્ય, હરિહર, વરાહ, ઉમામહેશ્વર, રંભા, મહિશાસુરમર્દિની ઇ. ની મૂર્તિઓ બહુ સુંદર અને અગત્યની છે, આ કુંડા લેખમાં આથી વધારે શું લખાય ? સૂક્ષ્ણે કિમચિકમ્ ॥

NOTES

GUJARAT RESEARCH SOCIETY.

FIRST ANNUAL REPORT FOR THE YEAR 1936-37.

The formation of the Gujarat Research Society was decided at a preliminary meeting of about 25 persons interested in the cultural progress of Gujarat, convened by Mr. P. G. Shah on 30th August 1936, at the Forbes Gujarati Sabha Mandir, Bombay. A Committee was appointed at that meeting to draft the Constitution of the proposed Society. The draft was approved at a general meeting held on 30th September 1936, when the first Council of Management was elected.

The Council of Management has been busy during the year with the spade work necessary to organise the Society on proper lines. It has held seven meetings during the year. Besides this the Council discussed the problems of the Society in an informal manner with the members of the Society during excursions or social meetings. An excursion to Nalla Sopara, and a visit to the Haffkine Institute were organised; a conversazione was organised at the University School of Economics to meet Dr. A. B. Dhruv, and to discuss the question of commencing work on behalf of the Society at Ahmedabad.

The Society has by now 95 members on its roll, out of which 23 are life-members. An appeal for funds has been issued, and the Council hopes to follow up this appeal by personal requests and correspondence with Indian Princes and Charitable Trusts, as well as with other persons interested in the cultural progress of Gujarat.

The organisation of research and allied activities has been entrusted to Standing Committees on different subjects. Several such Committees have been organised, and they have all embarked upon suitable schemes of work. Though it is too early to record progress of a definite character, because the results of research must take time, especially when want of adequate funds makes it impossible to engage the services of full time workers, the Council is in a position to indicate briefly the nature of the work done or in progress.

Basic data regarding the population and agriculture of Gujarati speaking areas have been collected, and it is proposed to publish the same. The different Standing Committees are making bibliographical surveys of research already done in their respective subjects. Considerable progress has been made in this connection, though it may take some time before the results are published. The Committee on Education is engaged in the study of 'Intelligence Tests' of Gujarati speaking children, for which some progress has been made.

Co-operation with those in a position to help in research work undertaken by the Society is being organised. For example, certain data relating to the physical measurements of persons above 25 are being obtained from Insurance Companies. In the meanwhile, the Medical Inspection reports of Colleges of the Bombay University have been utilised to obtain data regarding the measurements of College students, and similar figures are being obtained from High Schools.

It has been decided that the Society should celebrate in a suitable manner the centenary of the late Dr. Bhagwanlal Indraji whose pioneer work in the fields of archæology and history of Gujarat is well-known. This has been entrusted to the Committee on Ancient Culture and History. The Committee hopes among other things to prepare a commemoration volume for the occasion. The Collectors in Gujarat were approached for information regarding places of historical importance in their areas, and we have received a good response from them.

The financial position of the Society is given in the audited statement of accounts which is enclosed. Though the Society has made a good beginning, the funds at its disposal are too meagre for the various schemes of research it has in view. The Council records with thanks the endowment of a scholarship by Mr. B. D. Amin of the Alembic Chemical Works for carrying out industrial research relating to Gujarat. The Council appeals to all persons interested in Gujarat for adequate help to carry out its work.

C. N. VAKIL,

5-2-38.

Hon. General Secretary.

SECOND ANNUAL REPORT FOR THE YEAR 1937-38.

During the year 1937-38 the Society was in the second year of its existence. The number of members on the roll was 83 out of which 26 were life-members. The spade work regarding the organisation of the work of the Society in different subjects with the help of different Standing Committees was carried further, and the results of some of the work are being gradually collected. The bibliographical surveys undertaken last year have been in most cases completed. The basic data regarding the population and agriculture of Gujarati speaking areas have also been compiled. An analysis has been made regarding the health of Gujarati students based on medical inspection reports of colleges and Schools. The research work on the shellack and alcohol industries undertaken with the help of a scholarship given by Rai Bahadur B. D. Amin has made considerable progress, and it is expected that these results will be available for publication soon.

The Committee on Ancient Culture and History has been in communication with interested persons regarding the celebration of the Centenary of the late Dr. Bhagwanlal Indraji. It is expected that competent scholars will contribute suitable articles for publication as a special volume in commemoration of Dr. Bhagwanlal Indraji.

The Society has sent round a questionnaire to primary school teachers and others all over Gujarat, asking for information regarding the ancient remains in their respective areas. Some replies have been received in this connection and it is expected that others will follow in due course. The Society hopes to publish this information in a suitable form at an early date.

In connection with the first Annual General Meeting of the Society a public meeting was organised on 5th February 1938 in the University Convocation Hall when the President of the Society, the Hon. Mr. Justice H. V. Divatia presided. Besides the members of the Society, a large number of distinguished persons graced the occasion. The Address of the President outlined the scope and activities of the Society and was appreciated by the audience. It is proposed to publish the address as soon as possible. The Hon. Mr. G. V. Mavlankar, and the Hon. Mr. Justice B. J. Wadia also addressed the meeting. The meeting terminated with a vote of thanks to the Chair proposed by Dr. Jivraj Mehta. The formal meeting was follow-

ed by light refreshments in the University Gardens, after which Prof. M. S. Commissariat gave a lecture on the "Monuments of Gujarat" illustrated by lantern slides which were very instructive.

Mr. Manilal B. Nanavati, Deputy Governor of the Reserve Bank of India was good enough to give a public lecture under the auspices of the Gujarat Research Society on the 17th August, 1938 in the Lecture Hall of the University School of Economics on "A Gujarat village—a study in rural reconstruction." The lecture was highly appreciated by the audience, particularly because it was a most illuminating account of the personal experience of Mr. Nanavati in carrying out rural reconstruction in a village near Baroda.

Because of the fact that research work carried out under the auspices of the Society or other research work done by independent workers relating to Gujarat needs a suitable medium for publication, the Society has been feeling the want of adequate arrangements in this connection for some time past. The Council is glad to be able to announce that successful negotiations were carried out with the Trustees of the Lalji Dayal Trust during the year under report for financial assistance to the Society, to conduct a quarterly journal. The first number of the Journal will be published in January, 1939. Most of the material referred to above regarding the work of the Society will gradually be published in the Journal. The Council of Management acknowledges with grateful thanks the help given to the Society by the Lalji Dayal Trust, towards the publication of the Journal which it is expected will go a long way in making the work of the Society known and in making its activities more useful.

The financial position of the Society is given in the audited Statement of Accounts which is enclosed. It is obvious that the Society is in need of more funds for carrying out its activities. The Council appeals to all persons interested in the work of the Society to help in all possible ways in making the work of the Society a success.

C. N. VAKIL,

27-1-39.

Hon. General Secretary.

THE GUJARAT RESEARCH SOCIETY, BOMBAY.

Balance Sheet as at 30th September, 1938.

<i>Funds and Liabilities</i>		<i>Property and Assets:</i>	
<i>Funds:</i>		<i>Investments: (at cost)</i>	
Permanent Fund:		3½ % Govt. Promissory Notes of the Face Value of Rs. 3,000/-	2,895-0-0
Balance as per last Balance Sheet	3,150-0-0	(The Market Value of the above investments on 30-9-38 was Rs. 2,936-4-0)	
Add: Contributions from Life Members during the year	600-0-0	<i>Cash and other Balances:</i>	
General Fund:		In Current Account with the Imperial Bank of India, Bombay	1,980-7-2
Balance as per last Balance Sheet	811-13-3	Cash on hand	21-6-0
Add: Excess of Income over Expenditure for the year as per Income and Expenditure Account	334-15-11		2,001-13-2
Total Rs.	4,896-13-2	Total Rs.	4,896-13-2

Income and Expenditure Account for the year ended 30th September 1938.

<i>Expenditure</i>		<i>Income</i>	
To Printing and Stationery	125-10-3	By Contributions from	564-0-0
Salary	140-0-0	Ordinary Members	18-0-0
Postage	43-5-0	Associate Members	582-0-0
Annual Social Gathering Expenses	116-8-0		
Distribution of Books to Members	150-0-0	Donations	250-0-0
Bank Charges	0-13-0	Interest on Securities	79-4-2
<i>Balance, being Excess of Income over Expenditure for the Year</i>	334-15-11		
Total Rs.	911-4-2	Total Rs.	911-4-2

NOTES

We have examined the foregoing Accounts of the Gujarat Research Society, Bombay, with the Books and Vouchers of the Society and find the same to be correct.
Bombay, 19th December 1938.

Sd. DALAL & SHAH.
Incorporated Accountants,
Registered Accountants,
Hon. Auditors.

Sd/-C. N. VAKIL
Hon. General Secretary

Sd/-P. G. SHAH
Hon. Treasurer

THE PROBLEM OF NURSING

with special reference to Gujarati women.

By

Dr. SIR MANGALDAS V. MEHTA

A cursory glance at the classified list of nurses and Midwives in the telephone book will be sufficient to bring home the fact that in the city of Bombay which has a population of eleven lacs there are hardly any Gujarati Hindu ladies who have taken to the profession of Nursing. The reason for this is not easily understood. It seems strange that the important women's association like the Bhagini Samaj, the Vanita Vishram and the Gujarati Hindu Stri Mandal have upto now been apathetic in this matter, and have not realised what opportunities the Nursing Profession affords to Gujarati ladies who either themselves desire or are constrained by circumstances to earn their own living. This profession affords a good opening to widows and to others who desire to devote their lives in social service or in relieving the suffering of humanity.

The training of General Nursing, Midwifery and Health Visitors in the province of Bombay is conducted by the Bombay Nurses, Midwives & Health Visitors Council which has been established since August 1935 under an Act of the legislature. The course in General Nursing is for three years and comprises of Elementary Anatomy, Physiology, Practical Nursing and Medical & Surgical Nursing. Candidates have to pass two examinations, the first examination in Elementary Anatomy & Physiology and Elementary Nursing and Bandaging, which can be taken after one year's training and the second examination in Medical & Surgical Nursing and Theatre work which can be taken after completing three years' training. During the training a probationer gets theoretical training as well as practical training in nursing of men, women and children. After passing the examination a probationer is eligible for registration as a general nurse and can then obtain employment in a hospital or can take up private nursing. For registration as a general nurse a candidate has to work for at least six months in the adult

male wards, but those who do not desire to nurse male patients are eligible for registration on a separate part of the Register.

The examinations in nursing are held every six months. The period of training for the Midwives course is one year and for persons who are registered nurses, six months. Candidates have to pass a written and practical test and are eligible for registration as midwives. These examinations are held every three months.

There is also another course viz. for Health visitors whose importance is mainly on the preventive side of diseases and whose duty is to visit people of the poorest class in their homes and advise them. The course is open to registered midwives and is of one year's duration. The candidates have among other things to know about Domestic Hygiene and Administration and Organisation of Maternity and Child Welfare work. This course is very useful for social workers.

The Hospitals which are recognised by the Council for the training in these courses are as follows :—

For General Nursing.

1. J. J. Hospital, Bombay.
2. K. E. M. Hospital, Bombay.
3. Sir H. N. Hospital, Bombay.
4. The B. D. P. Parsi General Hospital, Bombay.
5. The St. George's Hospital, Bombay.

For Nursing of women & Children only.

1. The Cama Hospital, Bombay.

For Training of Midwives.

1. The B. S. Mhaskar Maternity Hospital, Bombay.
2. The Cama Hospital, Bombay.
3. The B. P. Infant Welfare Society's Homes.
4. The Bai Motlibai Hospital, Bombay.
5. The Nowrosjee Wadia Maternity Hospital, Bombay.

For Health Visitors

1. The Health Visitors' Institute, Bombay.

The preliminary qualifications necessary for taking up the courses are general knowledge and knowledge of English up to the Std. III and some knowledge of English is considered essential as the probationers will have to fill up charts, read

the labels of medicines, prescriptions etc. This standard can be easily attained by any one, when women's education has progressed so much.

In almost all the Hospitals (except the Cama Hospital) the probationers during their training get a stipend of Rs. 10/- to Rs. 25/- p. m. and get free board. Residential quarters are provided by the Hospital authorities for the whole nursing staff either on the premises or in the immediate neighbourhood.

After completing the course the probationer can get employment in a hospital. The minimum salary usually paid to a nurse is Rs. 50/- and to a midwife Rs. 40/- p. m. There is also a scope of their earning a decent living by taking up private practice. There are a number of people in Bombay who would be willing to employ a nurse who would charge moderate fee. Skilful nursing is highly essential in a case of Pneumonia or enteric fever and in a Hindu family a Hindu Nurse who is conversant with the mode of living of the family would be more welcome.

It cannot be said that Gujarati women are not willing to take up the nursing profession. Such an assumption is proved to be incorrect by the history of the Nursing School at Jamnagar. The Nursing Association in Jamnagar which is known as Ranjit Nursing Association was started in November 1933 and it was decided to open a Nursing School with 15 pupils. Information about the courses was supplied to the Gujarati ladies and as a result as many as 75 applications were received. A preliminary examination was held as a result of which 25 were found to be fit to undertake training. All the pupils were very eager to undertake training and in order that they may not be disappointed all the 25 were accepted for training. At present 10 new pupils are admitted to the course in the school every year and the school is never short of pupils.

If this can happen in Jamnagar there is no reason to believe that Gujarati women in Bombay will not be coming forward to take up the course if the facts are put before them by the women's organisation and women social workers.

APPENDIX

Population of Bombay Presidency.....2,00,00,000.

Birth rate 34 per thousand.

Births every year 7,50,000.

If one midwife delivers 150 women per year, 6,000 midwives will be required.

Expenditure.

Stipend at Rs. 15/- p. m. Two years course on an average. Therefore
 $15 \times 12 = 180$ p. annum. For two years Rs. 360/- + Rs. 40/- sundry
 expenditure for two years. Total Rs. 400/- per each candidate for two
 years.

6,000 candidates i. e. $6,000 \times \text{Rs. } 400/-$ each Rs. 24,00,000/- p. a.

Pay of Nurse and Office expenses.

Pay of Nurse Rs. 30/- p. m. i. e. 6,000 nurses \times Rs. 30/- each equal to
 $\text{Rs. } 1,80,000/- \times 12 = \text{Rs. } 21,60,000/-$ p. a.

Pay Rs. 21,60,000/- per annum.

Office expenses: Rs. 8,40,000/- per annum.

TOTAL. Rs. 30,00,000/-

Sundry expenses Rs. 2,40,000/-

PAY Rs. 30,00,000/-

TOTAL Rs. 32,40,000/-

INCOME.

As per population if we consider one man out of 40 marriageable
 $2,20,00,000 - 5,00,000 \times \text{Rs. } 10/-$ tax each Rs. 50,00,000/- 20% men
 are not in a position to pay the tax therefore.

Rs. 10,00,000/-

Plus expenses on
 tax collection Rs. 7,60,000/-

TOTAL Rs. 17,60,000/-

Income Total Rs. 50,00,000/-

Deduct Rs. 17,60,000/-

Rs. 32,40,000/-

ANTHROPOLOGY IN GUJARAT.

By

P. G. SHAH

1. Anthropology, the Science of man, is as young a science as its subject is old. Its scope and field are as vast and widespread as the human race and its chronology covers still more expansive periods of time. While ordinary history deals with only four or five millenniums, anthropology seeks to trace the beginnings of the human race into periods beyond 50,000 B. C. when the Neanderthal man is supposed to have lived. A subject as vast as this must be divided into several branches and must be interdependent with many sciences like Geology, stratigraphy, Palaeontology, Archaeology, Linguistics, Numismatics, and Anatomy.

2. Huxley in his inimitable style in describing the aims of anthropology stated "The question of questions for mankind—the problem which underlies all others, and is more deeply interesting than all others is the ascertainment of the place which man occupies in nature and his relations to the universe of things. Whence our race has come, what are the limits of our power over nature and of nature's power over us, to what goal we are tending—are the problems which present themselves a new and with undiminished interest to every man born into the world."

3. Primarily anthropology is the science which discusses the relations of man to lower animals, and this branch known as physical anthropology begins with the study of the anatomy of the human body and of the nearest animals, the anthropoid apes, Gibbon, Orang, Chimpanzee, and Gorilla. The technique developed for this study is useful in identification of old bones and skulls which are the only direct remnants of the progenitors of the present human race. Anthropometry is the measurement of physical characters which are of great importance in identification of human races. Social anthropology covers the study of social phenomena connected with races, tribes and castes, and includes the study of the cultural patterns woven during centuries of collective life from the threads of ceremonial, religious and

cultural practices of the constituent families or groups. This subject is closely connected with and is often known as Ethnology which deals with characters of races of man-kind. Ethnography is a more comprehensive branch dealing with the distribution of the races of mankind, and their cultures.

4. Culture is the sum total of what an individual acquires from his society—the customs, practices, traditions, folklore, hereditary crafts, habits of life, artistic norms, standards of morality and nature of religious and spiritual beliefs. Modern anthropology has exploded the old fetishes and shibboleths which had conspired to build up the belief that the standard of life of the modern man or the so-called civilisation of the west was the best for the progress of humanity. As Goldenweiser has pointed out “however warmly we might feel towards the superiorities of our western civilisation, the fact is too patent that our scientific and technological development is far ahead of our habits and nations in matters social, political, economic and moral”. This point of view is stressed with the object of emphasising the necessity of regional study of the racial composition of the Gujarati Nation, in a detached manner without burden either of superiority or inferiority complex which has so often marred the impartial study of the cultural problems. There is no reason to assume that a particular nation is either superior or inferior to any other, but what is necessary is to bring the scientific aspect of the features which distinguish a group of the human race as compared to any other, and to ascertain what contribution it can give in the matter of history or growth of neighbouring groups or countries.

5. We must here distinguish between a race and nation. A race is described as a biological group based on community of physical characters which persist throughout ages while social and cultural traits vary with changes in the physical, social or economic or religious environments. A tribe or a clan is usually a much smaller part of a race but is distinguished from others by continued periods of isolated and independent life. For groups characterised by linguistic or cultural or historical the units, term “stock” or nation is used, but usually a nation is a conglomerate of different physical races cemented together by ties of common culture or language with or without a common religious or political control. The Gujarati Nation is composed of a number of biological races with various tribal groups, and split up into

innumerable castes and religious sects, though held together by bonds of a common language, cultural unity and intellectual heritage. It is a singular phenomena that these bonds have seldom in the recent history of the country been supported by a common Government or a completely homogeneous political control.

6- The object of this paper is to provide for the students of the subject a course of reading a survey of the literature on the subject as well as to suggest a few of the important problems awaiting discussion, study and solution.

7. Before a student takes up the subject pertaining to a comparatively small area like Gujarat he must be familiar with the main foundations of the subject. For this reason, a small number of books dealing with the general subject of anthropology and the origin of man on the surface of this earth, is given the first place in the list. The student has to familiarise himself with the method of approach adopted by modern scholars and with the results so far achieved.

8. The problems connected with the origin of races inhabiting a particular country have to be solved by the collaboration of various sciences. On the one hand, anthropology cannot depend merely on the study of cultural activities of the human race and be content merely with descriptions of the social habits of the communities living in the country at present. On the other hand the physical measurements by the anthropometrist, though extremely helpful in determining the purity of the racial strains in endogamous groups, have limitations of their own. These considerations have to be tested in the light of historical evidence and sifted thoroughly by the testimony of language and linguistic development. Questions of purity of racial origins can now be decided with the help of modern scientific methods e.g., affinities as shown by blood tests or by response of the skin to various kinds of stimuli. Modern research, therefore, while it has expanded its activities and multiplied its methods of attack has made the task of the research student extremely difficult though infinitely more interesting. Geological changes affect the climate and naturally the occupation, habits and tribal customs of the people. Large geological and geographical changes have taken place since the advent of man on this side of the hemisphere. The "seven rivers" of the Rigvedic period and the sea north of the Aravalli hills into which they were emptying their roar-

ing waters have all changed their paths, leading to vast changes in the climate, in the composition of the population, and in the occupations of the people. These changes rendered possible closer contact between the invaders from the North and original inhabitants of the peninsular India which has never been under water. The student of this subject for the Gujarat area has also to remember that in ancient times, probably during prehistoric periods the peninsular land which is now known as Kathiawar was an island and no study of the migrations of races can be complete if this factor is ignored.

9. The extremely heterogeneous nature of the population of Gujarat can be inferred from the large varieties of races that have come to it from various parts of the world. The richness of the mainland of Gujarat, built up from the alluvial deposits of the Sabarmati, the Mahi, the Narbada and the Tapti, earned for it the name, 'Sourashtra' (the good country) and attracted strangers to Gujarat both as conquerors and refugees. This attraction was enhanced by the facilities of travel even for the seafaring nations, supplied by a hospitable coastline broken up by torrential rivers forming gulfs, deltas, and harbours. The mountain ranges on the western side never offered any formidable opposition to the invader nor was the desert on the north difficult to negotiate. A comprehensive list of these ancient immigrants is given by Dr. Bhagwanlal Indraji in the following words which bear quotation :—

"By sea probably came some of the half mythic Yadavas (B. C. 1500-500), contingents of Yavanas (B. C. 300-A. D. 100) including Greeks, Bactrians Parthians and Scythians; the pursued Parsis and pursuing Arabs (A. D. 600-800) hordes of Sanganian pirates (A. D. 900-1200); Parsi and Nawayat Musulman refugees from Khulagu Khan's devastation of Persia (A. D. 1250-1300); Portuguese and rival Turks (A. D. 1500-1600); Arabs and Persian Gulf pirates (A. D. 1600-1700); African Arab, Persian and Makian soldiers of fortune (A. D. 1500-1800); Armenian, Dutch and French traders (A. D. 1600-1750) and the British after A. D. 1750.

"By land from the north have come the Scythians and Huns (B. C. 200-A. D. 500) the Gurjaras (A. D. 400-600): the early Jadejas and Kathis (A. D. 750-900); wave upon wave of Afghan, Turk, Mughul and other northern Musulmans (A. D. 1000-1500); and the later Jadejas and Kathis (A. D. 1300-1500).

4. Migrations of Gurjars and connection between the Gurjars in the Panjab and United Provinces and the modern Gujaratis.
5. A study of migrations of Gujaratis into Sind, Rajputana, Punjab, United Provinces of Agra and Oudh, Malwa, Khandesh, Deccan, Madras Presidency before the advent of the modern methods of transport; and the changes in their language and dress after migration.
6. Origin of caste system in Gujarat, which is more minutely divided than the system in other parts of Hindu India.
7. Anthropometric measurements on a much larger scale than about 100 individuals attempted by Risley 1897 and 268 in 1931 by Guha.
8. A complete study of the aboriginal races like Bhils (hills), Kolis (plains), Mangas, Raniparaj, Vaghers, Vaghris, Kathis, Dangs.
9. A study of the customs and manners of the newer ethnic groups e.g. Mumanas, Mulislams, Anglo-Indian and the influence of the new religion on their physical conditions of health and stature,* their outlook on life and on their general culture.
12. The following is a list of books and journals which will be found useful :—
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* Compare the study of the effect of the climate of New York city on immigrants from Europe described at pages 17-18 of "Anthropology" by A. Goldenweiser.

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 E. V. Russell.

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INDUSTRIAL USES OF ALCOHOL—PART II.*

By

DR. V. R. HEERAMANECK.

In Part I (This Journal April 1939, p. 14) several uses of alcohol were described in which the alcohol is used as the starting material for the manufacture of other industrially useful compounds by chemical processes.

Before I proceed to describe the other multifarious uses of alcohol as such it will be interesting to broadly enumerate the various items of use.

The uses of alcohol in various industries are given below in a tabular form which shows the approximate quantities of alcohol used annually in the united kingdom. From the table, the indispensability of alcohol to modern civilization will become apparent.

Quantities of Industrial Methylated Spirit used in the United Kingdom for manufacture or other purpose.	Quantities in thousand gallons.
Finish for Sale	391.0
Varnish, polish and lacquer for sale	1,116.2
" " " " used in makers' workshop	303.5
Stains, Paints, enamels, etc.,	103.8
Felt and other Hats	66.1
Celluloid, xylonite, and similar substances ...	28.5
Oil cloths, Leather cloths, and similar substances	227.9
Smokeless powders, fulminates, and other explosives	294.3
Soap Making	202.7
Electric lamp filaments	10.7
Incandescent Mantles	38.3
Ether	393.1
Chloroform	17.5
Ethyl chloride and bromide	2.6
Solid medicinal extracts	49.2
Alkaloids and fine chemicals	72.0
Embrocations, liniments lotions	32.7
Surgical dressings	15.2
Capsules and other medical appliances	2.5

*This is the second instalment of the work done by Dr. V. R. Heeramanek in connection with the donation of Raja Mitra B. D. Amin to the Society for preliminary work on the shellac and alcohol industries to which reference was made in the first number of this Journal.

Quantities of Industrial Methylated Spirit used in the United Kingdom for manufacture or other purpose.				Quantities in thousand gallons.
Hair washes	...	...	...	47.7
Cattle medicines	...	...	...	3.6
Plant washes, Insecticides and sheep dips	...	...	...	17.6
Aniline and other dyes (solid )	...	...	...	0.7
Aniline and other dyes (liquid )	...	...	...	4.6
Fire-works and matches	...	...	...	4.1
Photographic plates, papers and other Photographic purposes	...	...	...	48.9
Steel pens	...	...	...	2.2
Silk, Crape, and Embroidery	...	...	...	11.7
Artificial flowers etc.	...	...	...	8.4
Rubber	...	...	...	1.0
Solidified spirit	...	...	...	27.0
Ship-compasses, spirit-levels, etc.	...	...	...	1.3
Inks	...	...	...	0.8
Collodion	...	...	...	33.5
Disinfectants	...	...	...	2.2
Dyeing operations	...	...	...	31.3
Textile Printing	...	...	...	3.6
Electro-typing and Printing...	...	...	...	1.5
Museums and Hospitals	...	...	...	4.5
Colleges and Schools	...	...	...	4.2
Analytical and Scientific purposes in laboratories of analytical work etc.				5.6
Used in Hospitals, Asylums and Infirmaries,				72.8
Admiralty Dockyards, War offices, Arsenals and Workshops				265.5
Miscellaneous Uses				115.4
Total				4,082.5

Total number of Gallons used

4,082,500 Gallons.

From the table it will be evident that manufacture of "Finish" consumes a substantial amount of alcohol. As already said before, "finish" is a mixture of methylated spirit and any given resin in alcohol-solution. Finishes are employed for polishing leathers. They are applied to the grain side of the leather leaving a very thin flexible film, sufficiently hard to take a polish when the leather is glazed, that is when the leather is glazed on glass or agate.

In cellulose finish for patent leather, alcohol is used with other solvents to the extent of 10%. In ordinary leather finishes, alcohol is the chief solvent; alcohol is also used as one of the solvents in artificial leather dopes.

Alcohol is the principal solvent in making spirit varnishes; as such it finds extensive use in making bottle varnish, hard cold made varnish, shellac varnish, straw hat varnishes, transfer varnishes, violin varnish, wood preservative finish,

varnish for foundry patterns, and paper varnish. Alcohol dissolves sandarac, common rosin, grass free gum, and the oleo resin turpentine. In making varnishes spirit employed should not be weaker than 64 overproof.

Spirit varnish is used in show-case making, in polishes for same, in preserving natural history specimens e.g. serpents, in varnishes employed to coat delicate specimens to protect them from the action of air and preserve them from decay, and as an ingredient of insecticides. It is of great use in taxidermy.

Of the above varnishes, shellac-varnish is most important and finds extensive use in the manufacture of furniture, all kinds of wood work, carriages, trunks, umbrellas and other articles too many to mention. All kinds of dynamos and motors, from the vast dynamos which whirl in the power stations to the small motors which drive tram cars, are all dependent on shellac varnish. Besides this, shellac varnish is used to impart softness to silk, for coating metal work, brass bedsteads, gas or electrical fittings in houses, lamps, musical instruments, paper cutters, and similar articles.

Alcohol further finds use in the preparation of polishes and lacquers. Polishes are principally used for restoring the original luster and finish of a surface. Alcohol is utilized as one of the agents for making aluminium and brass polishes. French polish is a thin shellac solution in alcohol (1 to 10); it is used for most articles of furniture. French polishing calls for great skill to show up the grain, enrich the effect and to give a gloss to the surface.

Spirit lacquers are more dilute solution of resin, and they may be tinted green by an alcoholic solution of brilliant green, yellow by a similar solution of chrysiodine, blue by an alcoholic solution of spirit blue and black by nigrosine.

For some time, interest has centred round the use of absolute alcohol as a solvent for cellulose lacquer. It differs from the 96% quality in the possession of a high degree of solvent power for cellulose derivatives, resins and oils; alcohol soluble cottons are almost completely dissolved by it and also some highly alkylated ethyl celluloses go completely into solution. Solutions of benzyl cellulose in aromatic hydrocarbons tolerate greater additions of an anhydrous alcohol; and of the natural resins, elemi, dammar, some copals are more soluble in absolute than in rectified alcohol.

Alcohol is likewise employed in the manufacture of stain

paints, enamels, etc., as a solvent and vehicle for dye and resin. Alcohol is employed for dissolving aniline dyes in the preparation of spirit stains; as such it finds use in the preparation of mahogany, walnut, oak, stains, etc.; almost pure alcohol mixed with a little turpentine (100 litres alcohol and $\frac{1}{2}$ litre turpentine) is used in Germany for dissolving Bismark Brown and resin in alcoholic solution to form the spirit varnish stain which produces imitation mahogany.

Hat making is another industry which absorbs a fair amount of unmineralized methylated spirit as solvent.

Alcohol is one of the ingredients used in the making of the important materials like celluloid, xylonite, etc.; celluloid consists of a low nitrated cellulose usually termed pyroxylin and camphor. Celluloid may be prepared either by (1) the Dry Process or (2) by the Wet Process. We are, however, concerned with the Second process as it depends on the use of alcohol. In the alcohol and ether process of Magnus and Co., 50 parts of pyroxylin placed in stone-ware vessels and 28 parts of camphor dissolved in 100 volumes of ether and 50 volumes of alcohol are added, and the whole, together with a "stabilizer" or "antacid" such as urea stirred up in the closed vessel (to prevent evaporation of the ether). The crude plastic stuff so obtained is rolled out into sheets and after hardening is treated in the worm state in the hydraulic press. The process is only suitable for the production of moderately thin sheets or bars of celluloid. The danger of explosion and fire through the use of ether vapour is very considerable.

Manufacture of Oil cloth; leather cloth, and similar substances are some of the other industries which are indebted to alcohol which is probably used in some varnish used in their preparation. Oil cloth consists simply of fabrics coated with linseed, oil, whiting, and pigment.

A well developed alcohol industry in addition to being of such importance in peace times, is further of great significance as a means of national defence, for alcohol enters into the manufactures of smokeless powders, fulminates and various other explosives. Smokeless powders, of the present day contain, as chief constituent, nitro cellulose alone or mixed with nitro glycerine or some other nitro compound or inorganic oxidizing agent. Attempts to use fibrous gun cotton as a propellant were attended by failure. Dangerously high pressures were developed in the bore of the gun.

It was only when the control of the rate of combustion of the explosive was made possible by gelatinization that progress could take place. For gelatinizing nitro cellulose the solvents acetone or ethyl alcohol are generally used, the former for gun cotton and the latter for collodin cotton.

Mercury fulminate is obtained by the action of ethyl alcohol or methylated spirit on a solution of mercury in nitric acid. The reaction takes place in a large flask or carboy, and may require to be moderated by the addition of alcohol.

The popular transparent soaps have been made available chiefly due to alcohol, although cheap and inferior varieties are manufactured without alcohol. The better varieties of transparent soaps are made by mixing soap with (1) alcohol, (2) alcohol and glycerine or (3) alcohol and sugar.

With Alcohol Alone. Shavings of a good quality soap, carefully dried in hot air, are gently warmed in a still with an equal weight of rectified spirit until the soap is dissolved. The excess of alcohol is distilled off, collected and used again. The clear liquid left behind is run into frames, cooled, cut into pieces, pressed and allowed to season in dry air. The best, most expensive soap, is thus produced.

With alcohol and glycerol, or Sugar. These classes of soaps are best made by the "Cold process" from about equal parts of coconut oil and tallow together with a quantity of castor oil; the latter oil greatly conduces to the transparency and at the same time diminishes the quantity of alcohol glycerol, or sugar needed for transparency.

The manufacture of lamp filaments still consumes a small amount of alcohol.—1 part of cellulose is digested in a solution of 4-6 parts $ZnCl_2$ in 6-10 parts water, at a temperature of 60-100°C. A homogeneous syrup results which is employed for making lamp filaments by squirting through a fine orifice into alcohol. The precipitated hydrated cellulose-zinc-oxide is treated with dilute hydrochloric acid and well washed.

Manufacture of gas mantles is also indirectly dependent on alcohol: Collodion which is prepared with the aid of alcohol is utilized for impregnating incandescent mantles.

Alcohol finds important use in the preparation of medicinal extracts of British and other Pharmacopoeas. The term extract is generally applied to a preparation when it is

intended to convey that it contains a higher proportion of the active principles of a drug than a corresponding infusion, decoction, or tincture. Many extracts are alcoholic although there are aqueous and etherial extracts as well. The extract may be either soft or dry according to the stage to which evaporation is allowed to go on. Soft extracts are made of a semi solid sticky consistency while dry extracts are solid residue left after complete evaporation. In making an extract the drug is bruised and subjected to a process of percolation with cold distilled water or alcohol till it is completely exhausted. The percolate is then evaporated to the desired consistency.

Alcohol further finds valuable use in the extraction of alkaloids and active principles of plants. Large quantities of alcohol are also consumed in purification of medicinal chemicals by crystalisation from alcohol.

Alcohol is used as a solvent in embrocations, liniments, tinctures, emulsions suppositories, in tablet making, and pill making, in ointments, sprays, mixtures, elixirs, confections gargles, plasters, inhalations, etc., Embrocation is a pungent medicinal spirit used as an external application to moisten the diseased parts of the body. Liniments are preparations containing alcohol for external use, and are intended to be closely applied to the skin by friction, or by smearing upon lint, or flannel. Lotions differ from liniments in that they are intended to be applied without friction and that their constituents are usually of a cooling or antiseptic nature rather than counter irritant. Tinctures consist of various substances dissolved in diluted alcohol. The alcohol used in tinctures need not be strong; in most cases it will be sufficient to use alcohol of 45% strength. Emulsions are opaque liquid preparations of a thick consistency in which oily or resinous liquids are suspended by the agency of gummy or viscid substances; 20% alcohol is used in emulsions which become gelatinous on keeping. Suppositories are solid preparations of conical shape intended for the introduction of medicament into the rectum. In making suppositories, the medicament is softened by rubbing it with alcohol. Alcohol is useful as a moistening excipient in the manufacture of tablets and pills. Excipients enter into the composition of the tablets or pills as substances which bind ingredients together. Alcohol is employed in the preparation of ointments for making resinous bodies into a paste. Alcohol is also consumed in small

quantities in surgical dressings and other medicinal appliances.

Alcohol also enters largely into the composition of aromatic waters, eau de cologne etc., in the form of rectified spirit.

The manufacture of cattle medicines, plant washes, insecticides, and sheepdips is also dependent on alcohol. A minor use of alcohol is for impregnating ingredients in the manufacture of fire works and matches.

SOCIAL AND ECONOMIC STRUCTURE OF GUJARAT.

III *Agriculture.*

C. N. VAKIL & M. H. PATEL.

Agriculture is the most important and leading industry of our country. Two-thirds of the population get their livelihood, however meagre it may be, from agriculture. This is applicable to Greater Gujarat also. The study of agriculture and allied questions will be a key to the social and economic problems of our country. But the lack of information has not been more keenly felt than in the present study. In the absence of an original detailed survey the statistics have been compiled from the "Agricultural Statistics of India" published annually by the Department of Commercial Intelligence and Statistics in two volumes. It will be noticed that the statistics for live stock etc. are not available in the case of a large number of them. If these figures could be made available by the State authorities, a complete statement would be rendered more feasible. In the meantime these incomplete notes are published with the two-fold object of getting the information completed by the States, and of preparing the ground for the collection and discussion of these statistics from the point of view not only of pure agriculture, but also that of agricultural economics.

Other limitations arise out of the political composition of the area. In matters such as agricultural indebtedness, state in relation to agriculture, etc. the information available is for the political unit, and so it is impossible to gather information for Greater Gujarat. In cases such as the composition, direction, value and quantity of trade, the figures are for all India. At the same time information about agricultural holdings with special reference to problems of fragmentation and subdivision is wanting except for the surveys of some villages and talukas of Gujarat.

In spite of these limitations, it will be possible to deal with the classification of area and its relation with production and population, the statistics for live-stock and the problem of animal husbandry.

In the first place we shall explain in brief the significance of the terms used in Appendix I.

(a) *Forests*. The area classed as forests comprises only those areas which are administered by the Forest Department as reserved forests or fuel reserves.

(b) *Land not available for cultivation* includes all lands absolutely barren and all lands covered by buildings, roads, water or otherwise appropriated to uses other than agriculture. In settled tracts, the culturable area is taken from settlement registers, but in the unsettled tracts it is obtained from the best source available.

(c) *Culturable waste* other than fallow includes land thrown out of cultivation and abandoned.

(d) *Current fallows* includes all land occupied for agricultural purposes which is left uncultivated.

The following table will give an idea about the population in relation to area of crops and density :

TABLE I

Name of country	Area of crops (100 acres)	Population (100 omitted)	Area of crop per head	Density per square mile
England & Wales	30751	37885	0.8	649
Germany	82241	60500	1.37	332
Japan	15370	56000	0.27	376
France	90910	41476	2.2	191
U. S. of America	955883	117858	8.1	32
C. Provinces	24668	15500	1.6	155
Punjab	26504	23000	1.15	210
Bihar & Orissa	24132	37800	0.63	455
U. Provinces	35662	46700	0.77	484
Bengal	23357	50200	0.46	616
Bombay	32802	21900	1.5	177
Gujarat	4391	3224	1.36	316
Baroda	3297	2443	1.35	298

The figures reveal the intensity of population pressure on land. In Germany according to Truennier agriculture alone cannot support more than 250 persons on the square mile. In Europe a large percentage finds employment in industries and as such the standard of living in villages is maintained and even considerably improved, the surplus population migrating to the cities. It may be said that with the natural advantages of large and favourable rainfall, agriculture in India can support normally a much larger population than

the less favoured countries of Europe, even then it is a question whether the state and tendency of the population is not alarming.

The following table will illustrate in another way the question of the population problem and also of the economics of cultivation. It gives the amount of land cultivated by a cultivator on an average in different parts of India, and in some foreign countries.

TABLE II.

No.	Name of Province.	Cultivated area per cultivator in acres.	No.	Name of Province.	Cultivated area per cultivator in acres.
1.	Bombay	12.15	11.	Baroda	4
2.	North West Frontier Province	11.22	12.	England	62
3.	The Punjab	9.18	13.	Germany	21.5
4.	Central Provinces	8.48	14.	France	20.25
5.	Madras	4.91	15.	Denmark	40
6.	Bengal	3.12	16.	Belgium	14.5
7.	Bihar & Orissa	3.09	17.	Holland	26
8.	Assam	2.96	18.	U. S. A.	148
9.	United Provinces	2.51	19.	Japan	3
10.	British Districts of Gujarat	5	20.	China	3.25

This comparative study of the size and distribution of holdings in different parts of India show rainfall to be the dominant factor in the distribution of holdings among groups of owners. Where rainfall is abundant and certain, the size of the holding is much smaller than in areas where rainfall is inadequate and precarious. Gujarat cannot be said to be happily situated in matters of rainfall; even then the average holding per cultivator is not very high. Sir Malcolm Darling after examining the conditions of different districts in the Punjab comes to the conclusion that agriculture on 8 or 10 acres is wholly insufficient, under present conditions to maintain the farmer in decency, independence and comfort. In the richest part of England 10 acres is considered the smallest area on which a man can support a family without any other industry to help him. Where there is no livestock industry or market gardening, 20 acres are required. In Europe about 25 acres would represent the economic unit for a peasant who is not a market-gardener. With these esti-

mates before us, we can definitely conclude that the average holding per cultivator is far below the requirements for a minimum standard of living.

The problem is more serious if we remember that the existing holdings are by themselves uneconomic units. Although it is difficult to exactly define an economic holding, investigations have been carried out for the different areas and the estimated size of an economic holding has been determined. In every case the holdings have been found to be much smaller than the economic one. This evil of small farms is being each day accentuated by fresh sub-division. The causes are the increasing pressure of population, absence of diversified occupations and the law of inheritance and succession prevailing in the country. Measures should be adopted to prevent further subdivision and to consolidate the small farms as far as possible. Sir Chunilal Mehta moved a Bill in the old Bombay Legislative Council in 1927 to regulate the extent of subdivision. But the measure did not receive the approval of the Legislature on various grounds.

TABLE III.

Number of Acres under cultivation in thousands.

Year	Ahmedabad	Broach	Panchmahals	Kaira	Surat
1931-32	1558	638	553	828	760
1932-33	1557	638	560	829	761
1933-34	1592	637	558	...	...
1934-35	1592	...	...	835	766

The table indicates that agriculture as an industry is not progressing, the area under cultivation remaining almost constant. The alternative is to increase double cropped areas by increasing irrigational facilities.

TABLE IV.
Classification of Areas in thousand acres for the year 1934-35.

District or State.	Forests.		Not available for cultivation.		Cultivable waste other than fallows.		Current Fallows.		Net area sown		TOTAL.
	Area.	P. C.	Area.	P. C.	Area.	P. C.	Area.	P. C.	Area.	P. C.	Area.
Ahmedabad	9	0.4	497	20	76	3	290	12	1593	64.6	2465
Broach & P. M.	206	10.5	353	18	111	6	103	5.2	1196	60.3	1968
Kaira	...	...	158	15.8	16	1.5	23	2.2	836	80.5	1033
Surat	50	4.7	176	16.7	45	4.2	22	2.1	766	72.3	1058
Gujrat ...	265	4	1184	18	248	3.8	438	6.7	4391	67.5	6524
Baroda ...	459	9.4	699	13.6	659	12.8	...	...	3296	64.5	5154
Bombay Presidency ...	9230	11.7	19477	24.7	6665	8.4	10717	13.7	32802	41.5	78893
India ...	89239	13.35	144816	21.7	154260	23.15	52298	7.8	226976	34	667594

Table IV indicates the possibilities of the expansion of cultivation to support the increasing population. The area of forests cannot be brought under cultivation. Any further diminution will affect unfavourably the quantity and distribution of rainfall and endanger agriculture as has been our experience in the case of the Ratnagiri District. In British Gujarat forests occupy a small area as compared with Baroda as well as the Bombay Presidency. In the British Districts a high percentage of area has already been brought under cultivation. The total of "Current fallows" and the "Net area sown" aggregates to nearly 74 per cent. The figure for Baroda is 68 per cent. The area classed as "not available for cultivation" which amounts to 18 per cent. in Gujarat and 14 per cent. in Baroda has to be definitely left out of consideration, as it cannot be brought under cultivation. The only important class of area from our point is the "cultivable waste other than fallow". It forms 4 per cent. of the total area for the British Districts and 13 per cent. for Baroda. Although the scope for extensive farming is little, the causes which have led to the abandonment of this area should be investigated, and an attempt should be made to bring it under cultivation.

TABLE V
(figure in lakhs)

	Total sown area.	Total irrigated area.	Percentage of irrigated area to total cultivated.
1. British Gujarat ...	44	1.3	3
2. Baroda ...	33	1.3	4
3. Deccan ...	71	8	5
4. Konkan ...	71	2	2.8
5. Karnatak ...	14	.5	3.8
6. Bombay (including Sind) ...	328	50	16
7. United Provinces ...	356	105	30
8. Punjab ...	265	145	54
9. Madras ...	328	92	28
10. India ...	2270	505	22

These figures reveal the great inadequacy of irrigational facilities. One of the causes for this deficiency is the absence of perennial rivers. In such a case, the possible alternative methods of irrigation such as tanks and wells should be explored and wherever feasible encouraged.

TABLE VI.
(Cropped area of the Presidency in thousands of acres)

	Gujarat	Deccan	Konkan	Kar-natak	Bom-bay	U. P.	Punjab	India
1. Area cropped more than once...	198	559	65	70	32800	35600	26500	227000
2. Gross area cropped ...	4453	16064	7170	1446	5706	11208	14685	54193
3. Percentage of 1 to 2 ...	4.4	3.4	.9	4.9	17	32	55	24

The above figures indicate the position regarding the double cropped area which goes hand in hand with the irrigational facilities. The part which irrigation plays in rural economy of the different provinces varies from Province to Province. But its importance as an adjunct to agricultural economy is identical. On the one hand it is an insurance against the ravages of famine. On the other hand it can be a medium of extensive as well as intensive farming. It is possible to reclaim cultivable waste by irrigation facilities as has been done in Sind by the construction of the Lloyd Barrage. It is also possible to increase double cropped areas.

TABLE VIII
Yield per acre in Lbs.

Province.		Rice.	Wheat.	Cotton.
Bombay	...	922	420	71
Madras	...	1012	...	...
U. P.	...	...	750	121
Punjab	...	...	750	160

The figures indicate yield per acre of the important crops of the presidency with that of other provinces. Where irrigation facilities are more, the yield is also higher. The percentage of the area under irrigation to the total area sown is 54, 30 and 28 for the Punjab, the U. P. and Madras respectively against 16 for our Presidency. The yield of rice per acre is little higher in Madras than in Bombay. The yield of wheat is higher in the U. P. as well as the Punjab. Although our climate and soil are the best suited for cotton, its yield in the Punjab is double than its yield in Bombay. It will be clear that this problem of irrigation requires immediate attention for its manifold interest.

TABLE VIII.

Classification of Crops.

(In thousand acres).

DISTRICT	Rice.		Wheat.		Jowar and bajri.		Gram		Other food crops.		TOTAL.		Oil seeds.		Cotton.		Tobacco.		Fodder crops.		Others.		TOTAL.
	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	Area	P.C.	
Ahmedabad	61	4	168	10.5	529	33	20	1.2	90	5.3	868	54	72	4.5	517	32	5	3	139	8.4	14	8	1612
Broach and Panch Mahals	113	8.7	80	6.1	147	11.3	70	5.4	309	23.8	720	55.3	77	6	353	27.2	4	3	121	9.4	23	1.8	1298
Kaira	117	12.5	20	2	169	19	40	4	199	22.5	518	60	36	3.7	86	9.8	87	10	123	14.5	17	2	867
Surat	107	13	10	1.1	81	9.8	3	4	93	11.3	294	35.5	11	1.2	208	25	...	...	297	36	18	2.3	828
Gujarat	398	8.5	278	6	1026	22	133	2.5	691	15	2457	54	196	4	1164	24.5	96	2	680	14	72	1.5	4605
Baroda	223	6.4	83	2.5	1150	34	30	9	492	14.5	1977	58.3	264	8	919	27	59	1.7	78	2	76	2	3373
Bombay Presidency	3177	9.5	2809	8.5	13212	37	1022	3	3980	11	24200	69	1575	5.5	4280	13	185	0.5	2599	4	1285	8	34124
India	79520	31	25655	10	34964	13	13732	5.4	46763	18	200634	77.4	14543	5.6	14804	6	1259	0.5	10308	4	17990	65	259118

In Table No. VIII statistics of the crops grown in the different districts are given. These crops can be divided into food, grains, commercial crops which include oilseeds, cotton and tobacco and fodder crops.

In case of India as a whole, as much as 77 per cent. of the area is under food crops. These are mainly rice, wheat, jowar, bajri and grams. The largest of the area is under rice which forms the staple food of India. In the case of the Bombay Presidency, the same crops predominate excepting that jowar and bajri take the place of rice. In the case of the British districts of Gujarat as well as Baroda, a smaller percentage is under food crops. It is 54 per cent. for Gujarat and 58.3 per cent. for Baroda.

Next in importance are the commercial crops. The area under this crop in Gujarat as well as Baroda is larger than that for the Presidency as well as India. The main commercial crops are oilseeds and cotton. There has been a general tendency for the area under commercial crops to increase. The causes underlying are many. The extension of transport and marketing facilities coupled with the steady demand, high price and the ready cash available for them have tempted the agriculturists to cultivate these crops in increasing quantity. There has been a general tendency to grow these crops as much as possible leaving only the residue for the food crops. The only limiting factor has been the high cost of manuring and the soil exhaustion.

This attitude of the agriculturists has been subject to criticism. But in this age of money economy, the value of commercial or money crops should not be underestimated. It has enabled the farmer to raise his standard of living as the returns on his crops have been higher.

The area under fodder crops is 7 lakhs acres or 14 per cent, in Gujarat and 80,000 acres or only 2 per cent. in Baroda. Fodder supplies to cattle materials for growth and energy. It is a problem whether the area is adequate for the requirements of the cattle wealth of the province.

Rice can only be grown where the water supply is abundant, that is where the rainfall is heavy or irrigation facilities are available. Our province is not happily situated in either of this and as such the area under this crop is very little.

Jowar and bajri flourish under drizzling rain and dry climate. Our climate is well suited to these crops. On the

one hand these crops are food for man while the stalks serve as fodder for cattle.

Our soil known as the "black cotton soil" as well as climate is best suited to cotton. It is one of the most important commercial crops of our Province in particular and India in general. A large part is under this area in all the Districts except Kaira where tobacco predominates.

On the whole Gujarat is deficient in food grains as well as fodder. But this is made good by the commercial crops which have proved to be more paying.

The importance of the live stock in the rural economy is immense. The first important service is that of supplying tractive power for agricultural operations. From ancient times the bullock has been doing work on fields in contrast with horse and the machines used in the West. Bullocks also supply the motive power for locomotion. The details about the different classes of live stock ploughs and cart in the different divisions and states will be found in Appendix II.

The number of cattle has been high as compared with other countries as can be seen from the following figures.

TABLE IX.

	Number of cattle per 100 acres sown
British India	67
Holland	38
Egypt	25

The same tendency is visible in our province also. On the whole the cattle wealth is 50 per 100 acres for British Districts and 46 for Baroda.

Although the problem of improving the breed of the cattle is common with the rest of India, two types of cattle found in Gujarat viz. the Kankrej and the Gir have been classed as high in quality by the Royal Commission on Agriculture.

TABLE X
Classes of cattle maintained

District	Cattle per 100 of population	Per 100 acres of net area sown					Area cultivated per yoke
		Estimated grazing land	Cattle	Buffalows	Bullocks	Cow	
Ahmedabad	53	...	33	7	8	6	25
Broach & Panch Mahal	100	...	63	7	17	16	11
Kaira	63	...	48	16	14	3	13
Surat	62	...	53	9	16	10	15
Gujarat	68	...	50	9	13	9	16
Baroda	63	...	46	10	13	7	15
Bombay	60	33	38	7	10	6	20
Bengal	52	33	108	4	36	36	5.6
Punjab	67	62	60	19	16	10	12.9
U. P.	67	52	91	24	24	17	6.9

The above table indicates the important types of cattle in relation to the net area sown. The estimates of the grazing land is not available for the Districts and Baroda State. In the case of the presidency the figures are low in comparison with the Punjab and the U. P. The area cultivated per yoke is very high in the case of Ahmedabad. The figure for cattle per 100 of population is about the same in most parts of India.

The distribution of the cattle in the districts have been uneven. It is neither in relation to the area under cultivation nor to the population. The same also applies to the different types of cattle. The following figures in Tables XI and XII will serve as useful illustrations.

TABLE XI
Live stocks, Ploughs & Carts
(In thousands)

District	Bovine	Ovine	Others	Total	Ploughs	Carts
Ahmedabad	530	131	20	681	63	26
Broach & Panch Mahal	792	132	12	1036	107	36
Kaira	462	82	7	551	64	32
Surat	394	128	2	424	52	47
Total	2198	483	41	2702	286	141
Baroda	1513	416	52	1981	212	95
Bombay Presidency	12596	6112	563	19271	1553	768

TABLE XII
Density of buffaloes and of human population per sq. mile

District	No. of Cows.	No. of buffaloes.	Human population.
Allahabad	64	41	524
Aligarh	24	83	602
Hissar	23	17	172
Muzaffarpur	80	44	969
Ahmedabad	19	25	259
Kaira	16	79	458

The average number of milch cattle per holding is for Kankrej area 4.2 animals per holding¹. This is regarded by the author of the Report to be almost the highest in India. It would be useful to get statistics to show the comparative figures for other areas in Gujarat, Cutch and Kathiawar. It has been found by Mr. Patel that among the milch cattle, the number of cows is about double that of the buffaloes and it is very seldom that sheep and goats are being kept for milk production; while 48.3 per cent of the cows and 55.5 per cent. of buffaloes were constantly in milk. From this together with the fact that the overall yield of milk for buffaloes is twice

1. Vide Mr. P. J. Patel's "Report on a village inquiry regarding the cattle and the production and consumption of milk in certain breeding tracts in India" published by the 'Imperial Council of Agricultural Research in India,' 1937.

that for cows (being 7.82 lbs and 3.74 lbs per day respectively) it has been concluded that buffalo breeding should make a more paying proposition. Yet the distribution of the two kinds of cattle is not uniform in India and requires further investigation. This is true of various areas in Gujarat.

The general problems in matters of animal husbandry are the inadequacy of the grazing land, the improvement in the breed of cattle, better distribution of the cattle and the different classes in different areas, etc. For all these problems a thorough and detailed investigation is required.

Regarding implements, we have statistics about ploughs only. There are many other implements used in agricultural operations but information on the subject is lacking. The plough is an indispensable implement of agriculture and is used for tracking and tilling the land. It is indigenous, simple, cheap and suited to local conditions. It is made of wood and locally manufactured. Many labour saving implements have been invented and utilised in Western countries. Ploughing is done by machine tractors. Growing, thrashing, reaping etc. are also done by machines. But realising our conditions of small scale farming and a large labour supply, the costly machinery may not prove economical. On the one hand it will mean an investment of capital which our farmer can ill afford. On the other hand it means contraction of employment. Dr. Voelkar's opinion, expressed in 1880, that "there is not much scope for improved implements under existing conditions," even holds good today.

To conclude there is already a large portion of population on land and it tends to increase. There is very little possibility of the extension of cultivation as very little area is available. The alternative is to intensify cultivation. This can be done by increasing the facilities for irrigation. It will be possible thereby to increase the double cropped areas and also the yield. Although canal irrigation may not be possible, the deficiency should be made by good tank and wells. In matters of cattle wealth the position is equally unsatisfactory in spite of its abundance. All the problems connected therewith mainly feeding and breeding should be properly investigated with a view to increase the economic gain. If the low standard of living is to be maintained, the increasing pressure of population should be diverted to other work.

APPENDIX I.

Agricultural and Irrigation statistics for Gujarat (including Indian States 1934-35).

Name of the District.	Area in acres.	Forests.	Not available for cultivation.	Culturable waste other than fallow.	Current fallows.	Net area sown.	Govt. canals.	Private canals.	Tanks.	Wells.	Other sources.	Total.	Population of District for 1930-31.	Land Revenue 1930-31.	Incidence of land revenue per acre of cultivated area.
Ahmedabad ...	24,65,081	9,115	4,97,036	75,980	2,89,991	15,92,959	17,638	271	17,337	36,227	1,083	72,556	9,24,033	15,61,661	2-5-3
Broach & Panchmahals	19,68,432	2,05,643	3,53,129	1,10,981	1,02,678	11,96,001	1,298	...	57	4,460	317	6,132	7,88,696	20,61,566	1-1-6 (7)
Kaira ...	10,33,456	...	1,57,952	16,837	23,042	8,35,625	11,749	...	3,452	29,298	509	45,008	7,41,650	14,81,230	3-4-8
Surat ...	10,58,419	49,665	1,75,846	45,380	21,620	7,65,908	...	...	2,299	5,337	108	7,744	6,93,613	22,64,622	3-7-4
Baroda ...	51,13,903	4,59,134	6,99,007	6,59,065	...	32,96,697	1,720	...	2,418	1,25,294	1,929	1,31,361	2,43,000	...	...
Bhavnagar ...	14,17,551	6,986	1,54,776	4,60,395	...	7,95,394	...	...	451	43,023	...	43,474	5,00,000	...	...
Dharampur ...	3,82,875	91,357	12,793	1,39,981	...	1,38,644	...	...	...	126	...	126	1,12,031	3,44,087	1-3-9
Sachin ...	6,27,468	...	1,945	4,812	614	21,311	...	...	...	889	...	889	22,107	1,80,733	8-7-9

N. B. The figures for other States are not available.

APPENDIX II.
Live Stock, Ploughs and carts in Gujarat 1934-35.

	Oxen		Young Stock calves	Buffaloes		Young Stock calves	Sheep	Goats	Horses & Ponies		Young Stock colts & fillies	Mules	Don-keys	Camels	Ploughs	Carts	District	Area in 1000 acres	Population in 1000
	Bulls & Bullocks	Cows		Male Buffaloes	Cow Buffaloes				Horses	Mares									
Ahmedabad 34-35	131722	102835	77861	1647	113331	102018	42873	88062	2846	3195	1234	74	12254	1258	63303	26240	Ahmedabad	2465	924
Broach 29-30	60844	11222	14273	383	32994	30909	12151	24482	2099	2023	939	...	1521	99	38742	21001	Broach	939	334
Panchmahals 29-30	143636	82872	95143	627	47774	43961	9678	85970	1317	1714	551	273	2868	364	68317	15284	Panchmahals	1029	454
Kaira	116783	25978	52451	1166	128668	136747	32472	49533	675	978	234	15	5593	696	63779	31509	Kaira	1033	741
Surat 34-35	120632	70065	87436	4012	64226	47602	25130	103471	1476	547	113	...	...	383	51812	46565	Surat	1058	693
Baroda State	420978	209892	241975	4158	333882	303822	156305	26101	6978	9009	2288	61	28538	5788	212485	94736	Baroda State	5113	2443
Dharanpur	32171	27010	Included in cows	3399	4353	...	22837	Included in sheep	28	15	3	...	...	...	14036	1937	Dharanpur	382	112
Sachin	3181	1436	103	58	2520	205	1005	3401	52	14	2	...	...	...	1173	1280	Sachin	627	22
Bhavnagar	84416	49159	65828	1199	52497	53908	150343	123376	3456	5592	1932	6	6072	395	32846	20716	Bhavnagar	1417	500
Cutch	43443	55297	...	4375	23034	...	188166	Included in sheep	1100	1395	404	...	9467	...	12012	13542	Cutch	8249	514
Dhrangadhra	18916	15806	9720	806	9045	5392	53355	24806	665	776	508	2	1814	116	6387	4761	Dhrangadhra	1167	88
Dhrol	7366	4331	6060	72	1873	1906	18812	6983	194	343	106	...	1018	13	2846	1796	Dhrol	282	27
Gondal	35022	47546	10567	330	13104	6153	62116	Included in sheep	769	859	343	...	5536	208	10433	10097	Gondal	1024	205
Idar	51742	63532	29175	...	30281	12356	43152	do.	906	518	...	...	2801	424	19251	3102	Idar	1669	262
Jafarabad	1719	1380	1864	16	577	456	3656	1671	45	98	58	...	59	18	714	321	Jafarabad	53	12
Junagadh	120761	71625	93154	1967	66557	51787	172650	Included in sheep	3910	6736	6736	...	4891	376	54979	27093	Junagadh	3337	545
Limbdli	5895	5136	3063	33	3057	1831	731	In sheep	329	...	117	...	626	65	2184	1728	Limbdli	343	40
Morvi	21322	10403	10895	581	6128	11032	66723	31831	561	630	135	...	2234	172	7276	6621	Morvi	822	113
Jannagar	109078	68608	91585	1052	37831	31836	207345	132712	3127	6269	2678	5	9469	1804	38373	25923	Jannagar	3791	402
Palitana	11192	3957	5050	306	5658	3529	17931	9898	417	512	178	...	743	3	4094	2530	Palitana	300	62
Porbunder	21237	13631	14704	281	13630	8475	60956	22323	783	1784	372	...	738	209	9546	6898	Porbunder	642	115
Radhanpur 29-30	16291	30069	6471	882	8208	3906	31067	32659	162	562	128	...	2233	193	7392	3347	Radhanpur	1150	70
Rajkot	11428	7470	7726	93	3653	3577	38748	15878	337	476	152	...	1466	11	3955	2854	Rajkot	289	75
Wadhvan	6874	3083	3598	51	3406	3684	4842	9327	271	164	83	...	897	23	3159	2233	Wadhvan	242	42
Wankaner	11090	8904	11749	382	9492	7400	62392	25804	364	536	215	...	1930	45	4119	2375	Wankaner	417	44
Other States and areas	246713	244300	211947	7614	151057	105076	385960	353805	7211	9054	4713	6	22276	9571	94475	47665	Other States and areas.		
Total	1850452	1248612	1152398	35490	1167002	980634	1877462	1408058	40078	53805	19821	442	125094	22234	827688	422210			
Grand Total	...	42,51,462	...	...	21,83,126	...	32,85,520	...	...	113704	...								

PRESENT INDUSTRIAL GROWTH IN KATHIAWAR WITH SPECIAL REFERENCE TO TRANSPORT FACILITIES.

By

A. B. TRIVEDI.

The development of modern science has resulted in many new discoveries and inventions whose effects can be roughly classified as tending to create new and faster means of production as well as distribution.

The use of steam and electricity as sources of motive power has revolutionised the whole aspect of Production and Distribution. New methods of production came into existence and coupled with the rapid means of transport and communication, were able to change the nature and character of trade. International trade came to the fore and gradually the world emerged as a living organism wherein the slightest shock at the remotest corner was instantaneously reflected in all the distant lands. Trade received momentum and the pace was greatly accelerated by the growth of rapid means of communications. The Telegraph, the Telephone and the Radio opened up a new era in the history of communications and if to-day the volume of World's Trade is infinitely greater than what it was a hundred years ago, it is largely due to the facilities afforded to it by highly organised systems of transport and communication. The problem of development of trade and industry is thus closely bound up with that of transport. In the absence of adequate transport facilities it is impossible for an industry to thrive or for trade to receive any encouragement. The use of modern mechanical devices in large scale production, assumes both the existence of a demand whether at home or abroad, and the existence of a highly developed transport system which can enable it to market its products. In short trade and industry follow the transport facilities.

SCHEME.

In surveying the present industrial growth in Kathiawar with special reference to transport facilities, it is necessary to

divide the survey according to the part played by :

1. Roads.
2. Railways
3. Ports
4. and by other means of transport.

The rise and growth of industries in Kathiawar is only recent and we are too near to judge the part played therein by the transport facilities. Again the industries that have come into existence during the last decade or two, can be counted on the tips of the fingers. However it is hoped that a historical background of the development of the means of transport will enable us to judge the part played by them in the present industrial growth of the province.

1. Part played by the Roads.

In olden times the main trade route in Kathiawar followed the coast from Ghoga to Somnath in the south-west and thence to Dwarka in the north-west. The earlier land routes were those connecting the peninsula with the mainland. One such route was via Jhinjhuada and Patdi to Wadhwan, while the other lay via Viramgam to Wadhwan. During the days of the Vallabhi Empire routes through Dholka and Dhandhuka to Wadhwan and Vallabhi were in use. It also appears that there was a route joining Vallabhi to Junagadh and Vanthali. But as most of this road passed through forests and thinly populated areas, trade followed the sea route. It is interesting to note that from the earliest times Wadhwan, Dholka, Dhandhuka, Ghoga, Somnath, Junagadh and Dwarka, are situated on the main trade routes. There is ample historical evidence to confirm that almost the whole of the province of Kathiawar was once under the sway of the Vallabhi Rulers. A set of copper plates dated Samvat 714 of Vikramaditya bearing the name of a new King called Jayikdeva who is styled as the Adhipati of the "Sourastra Mandala" is kept in the Watson Museum at Rajkot. It commemorates the gift of Dhinki—situated in Okhamandal to a Brahmin named Ishwara. Dr. Bühler considers this King Jayikdeva as a powerful vassal of Vallabhi. Another plate found at Maliya shows that the rule of the Vallabhis extended as far as Junagadh and Vanthali. The most populous portion of the province during those days was the Bhal Country, the Dholka, Dhandhuka and Ghoga sub-divisions, and the Wadhwan and the neighbouring districts, and whatever

industries were there, they were mainly settled within these districts.

Later on the Solankis of Anhilwad—probably Sidhraj Jaysingh constructed a military road from Wadhwan to Junagadh via Sayla, Dhandhalpur, Chobari, Anandpur, Bhadla Sardhar, Gondal, Virpur and Jetpur. For a very long period trade followed this route. From historical records of this period, it appears that Kathiawar was well known even in those days for its cloth of various patterns and ivory bangles.

In Mohamedan times, especially under the Imperial Viceroys, the interior of the province became populous, routes increased, and a direct road from Wadhwan to Dwarka via Nawanagar and Khambhalia was constructed. It is just possible that Nawanagar arts and crafts might have received a greater fillip by the opening up of this route. The luxuries of the Imperial Viceroys and the Mohamedan Thandars of Sorath accorded great encouragement to the brocade and Jari works. This brocade work was carried on both at Nawanagar and Junagadh.

The old route from Rajkot to Wadhwan passed by Sanosra, Ghiawad, Mahika, Than, Umarada and Muli; and before the Railways were extended to Wadhwan, the route to Ahmedabad from Wadhwan passed by Talsana, Shapur, Sanand and Sarkhej.

As time passed on, Dholera and Ghoga became the chief ports of Kathiawar and during that period the routes to Dholera from Wadhwan and other places in Jhalawad were by Limbdi and Dhandhuka. From Halar and Kathiawar to Dholera the route passed via Vinchhia, Paliad, Ranpur and Dhandhuka. The trade route to Ghoga from Kathiawar and Gohilwad lay through Jalalpur, Dharuka, Ghanghli and Vartej. Before the Bhavnagar and Gondal Railways were opened, the trade from Ahmedabad to Gohilwad passed by Dholka, Koth, Hadala, Dhandhuka, Barvala, Vala and Sihor to Palitana. The old trade route from Navanagar to Gujarat and Malwa passed by Dhrol, Tankara, Morvi, Halavad, Dhrangadhra and Viramgam.

These were the principal routes in existence before 1865. What industries were helped in their growth by the facilities afforded by these routes it is difficult to assert, but one thing is practically certain that these routes provided ample opportunities to the traders to dispose of their merchandise in any part of the province.

Trade during those days was carried on partly in carts and partly on pack bullocks and asses. Besides the cartmen and the carriers, there were the pedlars who carried packs on their own backs or on bullocks and sold the articles to the people of the neighbouring villages. The volume of trade effected by these cartmen, carriers and pedlars increased with the opening up of new routes and this helped and encouraged the handicrafts and industries that were then existing.

Between 1865 and 1880 nearly 550 miles of new roads were constructed. Of these 330 miles were of first class bridged and metalled roads while 224 miles were of second class gravelled roads. Appendix A gives the details of new roads constructed between 1865 and 1880 in Kathiawar. It might be that these roads were planned with an ultimate view of railway construction along them or they might have been undertaken with a view to effect immediate despatch of military forces to any corner within the province but one thing stands out quite clear that by 1880, the interiors of Kathiawar were joined with each other by an immense network of roads. Even places in the remotest corners became accessible and volume of trade carried on by these cartmen, carriers and pedlars increased with the opening up of these new routes. Villages and towns situated on the junction of two or more roads began to develop and assumed the important role of distributing centres.

2. Part played by the Railways.

The first Railways that were constructed in the province were the Bhavnagar and Gondal Railways. The main line from Bhavnagar to Wadhwan was declared open on 18th December, 1880 by Sir James Fergusson and with it began a new era of railway construction within the peninsula. On 21 January, 1881 the other line from Dhola to Dhoraji was also opened. In 1888 Junagadh State constructed a line 16 miles long from Jetalsar to Junagadh while in 1889 the line from Junagadh to Veraval Docks a distance of 51.30 miles was opened for traffic.

Morvi State did not lag behind her sister states, and by 1894 it constructed $94\frac{1}{2}$ miles of railway lines of which the line from Wadhwan to Morvi, a distance of $68\frac{1}{2}$ miles was opened in 1887 and from Wankaner Junction to Rajkot a distance of $25\frac{1}{2}$ miles was declared open in 1890. The said line was carried beyond the river Aji in 1894. The Rajkot Jetalsar

railway constructed by the States of Gondal, Junagadh, Rajkot and Jetpur in the shares of 6 : 6 : 2 and 2 was open in 1893, while in the year 1897 the State of Nawanagar constructed the railway from Nawanagar to Rajkot, a distance of 54.22 miles. On the basis of an agreement arrived at between the States of Porbandar and Gondal in 1887, the railway between Dhoraji and Porbandar was opened in 1890. Thus by the end of the 19th century because of the state enterprise, all the important trade centres were connected with the railway lines.

As a result of the introduction of railways in the province, trade diverted towards the places on the railway lines. When the Bhavnagar and Gondal Railways were constructed, Bhavnagar began to develop as a great centre of distribution. Cotton from distant places like Junagadh, Nawanagar, Nadiad, Petlad, Anand, Bersad, Disa, Cambay, Limbdi, Wadhwan and Lakhtar began to be brought to Bhavnagar. Sugar, molasses, grain and clarified butter were brought from Delhi, Agra, Lucknow, Cawnpore, Jaipur, Benares, Hathras and Amritsar by railways. Of the outward traffic, trade in timber increased manifold. Timber was sent to Dhoraji, Gondal, Junagadh and other places in the West; to Wankaner, Morvi, Dhrangadhra, Wadhwan, Ranpur, Chuda, Sayla and to other places in the North; and to such distant places even as Viramgam, Mesana, Bhandup, Palanpur, Disa and Patan. Grain in large quantities was sent to Halar, Sorath and Jhalawad.

The Official Gazetteers* point out, that between 1866 and 1882 several attempts at opening up of Ginning Factories were made, some of which had to close down for various reasons. Factories situated in the interior experienced great difficulties as it was difficult for them to send cleaned cotton to the pressing factories without much inconvenience. In 1870-71, a Ginning Factory and a Cotton Press were opened at Dhoraji. Both the factories experienced hard times, but as a result of the opening up of the Bhavnagar Gondal Railways, Dhoraji became the terminus and the local cotton dealers began to extend their patronage to these factories. Thus the Railways saved these industrial concerns from ruin. After the opening up of the Bhavnagar Gondal Railways a ginning factory was started at Lathi in 1880 and it was hoped that similar factories would be established in the cotton centres in the interior of the province along the line of the railways.

*Vide Bombay Presidency Gazetteer Vol. VIII, P. 250.

The Railways thus paved the way for a new era of industrial development. The interior of the province came nearer and nearer every day to the rest of the world and the raw produce of Kathiawar began to appear in the markets outside the province. How industrial growth was fostered by the introduction of the Railways in Kathiawar can be better illustrated by the existence of nearly one hundred and fifty ginning factories in all the parts of the province as against some ten or twelve situated at some major ports or near some railway stations like Wadhwan prior to the introduction of the railways. It is not intended to enter into the details as to what particular industries owe their existence exclusively to the railways as in the complexities of modern economic tendencies, it is difficult to assert and assign a definite object as the prime cause and reason for particular phenomenon. At the most we can say that the railways imparted an active push towards the growth of these industries in the province which were best suited both as regards raw materials and labour but had been neglected till then because of the want of better transport facilities.

It is not intended to enter here into the history of railway management in Kathiawar, but it must be borne in mind that after the dissolution of Bhavnagar, Gondal, Junagadh and Porbandar State Railways Union in 1910-11 (commonly known as B. G. J. P. Union) every State began to develop its own railways according to the plan best suited to the needs of the territories under its respective jurisdiction. Fortunately for these states no hindrances of material character came in their way and as a result of their efforts to-day we find a veritable net-work of railways in the peninsula.

Kathiawar compares very favourably with other countries and British India as regards its mileage of railways as will be seen from the following statement :

RAILWAYS MILEAGE* open per 100 sq. miles of territory.

Belgium	396.	New Zealand	30.	United States of America.	70
Germany	196.	Union of		Japan	32
		South Africa.	24.		
United Kingdom.	195.	India	20.	Canada	11
France	130.	Argentina	19.	Kathiawar	47

Appendix B gives the details about the existing Railways in Kathiawar together with their opening dates. With the

* Figures taken from K. V. Iyer's book on Indian Railways.

gradual extension of the railways in the interior, a new tendency was visible in the agricultural undertakings of the province. Cultivation of commercial crops began to spread. Oil seeds of almost all kinds began to be extensively cultivated with the result that Kathiawar developed an enormous trade in raw materials. Oil Mills and Oil expellers were started at prominent places on the railway line; thus the railways were instrumental in giving that industry a footing within the province. Cotton Mills were started in the heart of the cotton districts while Pressing Factories were started at places which were within easy reach of the railways. Thus with the gradual increase of trade in Kathiawar, new branch lines were constructed which gave suitable places in the interior, an opportunity of developing their industrial propensities.

The World War gave an impetus and many new concerns were started at different places within the province. This tendency of gradual industrial growth became markedly visible at Nawanagar, Bhavnagar and Morvi as these states began to develop their ports.

3. Part played by the Ports.

Kathiawar with a coastline of about 500 miles abounds in ports. From early times, the places on the coastline were the first to come in touch with the outside world and trade was carried on mainly between these places along the coastline. The interior of the peninsula was covered with dense forest and was sparsely populated. There were no good roads but only cart tracks. The military roads under the supervision of the Solankis of Gujarat and the Imperial Viceroys of Delhi were the first main roads along which trade followed for a considerable period of time. Since the ports were the first to come under the influence of the outside world, a variety of handicrafts and small industries began to establish themselves there. Thus from the very beginning ports were the principal centres of trade and industry.

After 1917, Land Customs Cordon along the Viramgam-Dhandhuka line was removed and the Kathiawar maritime states were included in the British India Sea Customs Union. As a result, the policy of 'let alone' or 'laissez faire' was abandoned and each and every maritime state became port-conscious. Enormous expenditure was incurred by them for modernising their ports. All the maritime states of Kathiawar have tried and utilised their resources towards the

attainment of a single goal *viz.* the development and commercialisation of their ports. As a result, the Kathiawar ports have been able to snatch a substantial slice of foreign trade from the British ports of Bombay and Karachi. We are not going to weigh in this article the pros and cons of the Maritime States' case against the re-imposition of the Viramgam Cordon, but here we shall content ourselves with the discussion of the part played by the ports in the industrial development of Kathiawar. For this we have simply to see the new industries started at Jamnagar after the development of Port Bedi, or, to compare the existing industrial activities of Bhavnagar with those of a few years back. Appendix C gives a very good idea of the varied nature of industries existing at Bhavnagar in 1933-34.

Port Okha, Port Navalakhi and Porbandar have also contributed their mite towards the establishment of large-scale industries in Kathiawar. The existence of a gigantic concern like the Okha Salt Works, which is on the point of being developed into one of the best Alkali Works of India, is largely due to the nearness of Port Okha and the facilities provided by it towards exporting its salt to Bengal. The Okha Cement Works of Dwarka also owes its success to the better export facilities provided by Port Okha. The development of Port Navalakhi has helped the growth of Lavanpur Salt Works, the Pottery Works and the Glass Works; while Porbandar was selected as a suitable place for starting the first Cement Factory in India. The coming into existence of the Maharana Spinning and Weaving Mills, the Nadir Salt Works, and the Western India Glass Works at Porbandar was largely due to its geographical position as a good port.

It is not intended to overlook other considerations or raw materials and labour supply but it is not out of place to reiterate here that like the railways the development of ports also gave impetus to the growth of those industries which could not be established in the absence of proper port facilities.

4. Part played by other means of Transport.

In Kathiawar due to the existence of a number of different jurisdictions there does not exist any province-wide bus service. The field of operation for the motor buses and motor lorries is limited to local territories. Moreover some of the states open up out-agencies within their territories with an ultimate view to convert them into regular lines.

These being mainly traffic agencies, it is very difficult to ascertain and gauge the extent to which they contribute their quota towards the industrial growth of the province. But it will not be out of place to say that these means of communications together with the tramways facilitate the movements of goods from one place to another and serve the tracts which are devoid of railway lines and to that extent they also contribute their mite in the growth of the volume of trade in the province.

CONCLUSION.

The above is a humble attempt to survey the important role that transport facilities have played at various stages of industrial development in Kathiawar.

It reveals that in the earlier days before the province became subject to the suzerainty of Delhi, and the Imperial Viceroys governed the province, the main trade route was along the coast. Those were the days when Ghogha, Somnath and Dwaraka were flourishing centres of trade. In the accounts of the Mohamedan invasion of Somnath, we find realistic descriptions of Arts and Crafts which were then existing and for which Kathiawar had attained unrivalled fame. The Mohamedan Subas brought with them the luxuries of the Moghal Court and Kathiawar handicrafts began to display æsthetic tastes. The roads constructed primarily for military purposes were utilised by the traders and merchants, and the Vanjaras carried the Kathiawar manufacture as far as Marwar and Mewar. The Official Reports inform us that between 1760 and 1810, Bhavnagar had an extensive land trade with Pali, Jodhpur, Sirohi, Udaipur, Jaipur, Ujjain, Ratlam, Indore, Burhanpur, Penth, Ahmedabad, Danta, Patan, Radhanpur, Palanpur, Vadnagar, Vishalnagar and Sidhpur, while it also possessed an extensive sea trade with Karachi and Calicut, Maskat, Basrah, Mokha, Jidda, Zanzibar, Mauritius, Mozambique and with Ceylon, Singapore, Penang and China. Those were the hey-days of Kathiawar handicrafts and manufacture.

The introduction of railways within the province brought with it the ginning and pressing factories and the spinning and weaving mills. A new phase of industrial development began with the introduction of steam machine, but its results were not visualised in those days. The hand-gin and the screw-press which gave employment to a pretty large number could not compete with the machine both as regards the

output and the finish. As a result all those who worked upon them were rendered unemployed. The Textile Mill became a source of serious competition to the handloom weaver and he was forcibly dislodged from his vocation. The railways thus were not an unmitigated boon.

It is not intended to criticise unnecessarily the introduction of the modern system of transport facilities. On the other hand, it has conferred many advantages upon the province. The wide spread net-work of railways coupled with the existence of modernised and commercialised ports gave an altogether new orientation to the trade and industry of Kathiawar. Kathiawar no longer depended upon Bombay or Karachi for the supply of foreign articles. The new ports while affording ample facilities for indulging extensively in trade with foreign countries, opened up new channels for exporting the merchandise and manufactures from within the province. A co-ordination of the ports and railways paved the way for a steady rise in the total trade of Kathiawar and at the same time provided better facilities for marketing the products of the Kathiawar industries. The increasing trade of Kathiawar 'Ghee' is an instance in this direction.

Can it be then asserted that in view of these facilities Kathiawar has been industrialised to the core? It is rather the other way. No doubt these transport facilities have helped the growth of industrial establishments in Kathiawar but it is an accepted fact that even now Kathiawar exports consist mainly of raw materials like cotton and oil seeds and only a few large scale industries exist within the province. The problem of utilising these raw materials within the province is urgent, looking to the predominance of agricultural occupation and hence pressure on land in Kathiawar. The States concerned will serve their subjects in a better way if they take up in all earnestness detailed investigations into the industrial possibilities of the raw exports from within their respective areas. Such a step is not only overdue but it will result in an increase of wealth and general happiness of their subjects.

APPENDIX A.

Appendix giving the details of new roads constructed between 1865 and 1880 in Kathiawar.

From	To	Length in miles.
	<u>* First Class Roads.</u>	
Rajkot	Wadhwan	65
Rajkot	Junagadh via Gondal, Virpur, Jetpur.	58
Tankara	Morvi	24
Kandorna	Porbandar	13
Mahuva	Kundla	35
Mahuva	Bhadrod	3
Bhavnagar	Chavand	52
Bhavnagar	Bhandaria	13
Bhavnagar	Sidsar	3
Bhavnagar	Ghoga	9
Songad	Palitana	13
Pipla	Noghanvadar	8
Wadhwan	Limbdi	12
Wadhwan	Dhrangadhra	12
Jetpur	Dhoraji	8
Dhoraji	Junagadh	4½
	<u>* Second Class Roads.</u>	
Rajkot	Chavand	53
Rajkot	Nawanagar	52
Morvi	Vavania	24
Jetpur	Dhoraji	4
Gondal	Derdi	6
Dhoraji	Upleta	3½
Dhoraji	Navibandar	11½

* Vide Gazetteer of the Bombay Presidency Volume VIII. Page 220-221.

APPENDIX B.

Appendix giving the details of Railways in Kathiawar together with their opening dates.

I.—Bhavnagar State Railways.

		Date of opening.
a.	Bhavnagar to Wadhwan 105-11 Miles	1880
b.	Dhola to Dhasa 15-33 "	1881
c.	Sihor to Palitana 16-92 "	1910
d.	Dhasa to Kundla 35-80 "	
	(i) Dhasa to Lilia Mota	1911
	(ii) Lilia Mota to Kundla	1912
e.	Botad to Jasdan 33-47 miles	
	(i) Botad to Vichhia	1913
	(ii) Vichhia to Jasdan	1913

APPENDIX B.—(Contd).

f. Kundla to Mahuva	47.42 miles	
(i) Sawarkundla to Ghadhakda		1921
(ii) Ghadhakda to Rajula Road		1922
(iii) Rajula Road to Mahuva		1922
g. Botad to Dhandhuka	29.94 miles	
(i) Botad to Tagdi		1922
(ii) Tagdi to Dhandhuka		1922
h. Dunger to Port Albert Victor.	7.66 miles	1928
i. Rajula Road to Rajula Village & Quarries	5.84 miles	1927
j. Ningala to Gadhada	9.52 miles	1929
	Total	307.01 miles.

A. TRAMWAYS (Steam)

Bhavnagar-Talaja 33.11 miles

N.B. This tramway is extended from Talaja to Manuva a piece of about 37 miles and is declared open for traffic in March, 1938.

B. Wadhwan-Sayla.

17.11 miles is worked by Bhavnagar State Railway under agreement with Wadhwan and Sayla States.

II. Junagadh State Railways.

MAIN LINES.

		Date of opening.
a. Jetalsar to Junagadh	16 miles	1888
b. Junagadh to Veraval Docks	51.30 miles	1889
c. Veraval to Talala	14.70 miles	1918
d. Talala to Jambur	4.86 "	1920
e. Jambur to Prachi Road	8.00 "	1923

BRANCHES.

1. Shahpur Kutiana Branch (not proceeded beyond Saradiya).		
Shahpur to Manavadar	15.86 miles	1910
Manavadar to Bantwa	3.45 "	1910
Bantwa to Saradiya	7.00 "	1915
2. Junagadh to Visavadar Branch.		
Junagadh to Bilkha	13.64 miles	1912
Bilkha to Visavadar	12.92 miles	1913
3. Visavadar to Dhari	19.49 miles	1932
4. Prachi Road to Jamwala	7.05 "	1934
5. Jamwala to Delwada	24.22 "	1935
6. Veraval to Savni realignment	0.68 "	1936

Total 199.17 miles.

A. 6 annas' share in Jetalsar-Rajkot Railway.

B. In addition, the section of 18.62 miles from Sasan Gir to Visavadar is still under construction.

III. Gondal State Railways.

a. Dhasa Dhoraji	76 miles	1881
b. Dhoraji to Jamjodhpur	32 miles	

Total 108 miles.

A. Gondal has six annas' share in Jetalsar Rajkot line.

N.B. Sidsar to Patan 7.85 miles sanctioned but not constructed.

APPENDIX B.—(Contd).

IV. Jamnagar State Railways.

- | | | |
|---------------------------|-------------|------|
| a. Rajkot to Nawanagar | 54.22 miles | 1897 |
| b. Jamnagar to Khambhalia | 33.56 " | 1922 |
| Khambhalia to Kuranga | 32.36 " | 1922 |
- A. With effect from 4th April 1923 Jamnagar to Kuranga lines and Okhamandal Railways were amalgamated and are at present known as the Jamnagar & Dwarka Railways.
- B. N.B. The Railway construction between Khambhalia to Salaya has been recently undertaken by the Nawanagar State with a view to facilitate the development of the Port (*The Times of India* 18th February, 1938).

V. Morvi State Railways.

Wadhwan to Morvi	68.5 miles	1887
Wankaner Junction to Rajkot	25½ miles	1890
Across the Aji River		1894
Total	94.5 miles.	

BRANCH.

- | | | |
|--------------------|--------------|------|
| 1. Than to Chotila | 12.56 miles. | 1926 |
|--------------------|--------------|------|

A. TRAMWAYS.

94 miles of tramways are constructed by the State within its territories but they are not Railways.

VI. Baroda State Railways.

a. Khijadia Dhari Railway	37.22 miles	
Khijadia to Gawadka	16.39 miles	1913
Gawadka to Chalala	9.14 miles	1914
Chalala to Dhari	11.69 "	1916

At present this line is managed by the Gondal Railway.

- b. Kuranga to Adatra 37.03 miles (November, 1922).
On 1st April, 1923 this line was handed over to Jamnagar State Railway for working.

VII. Jetalsar Rajkot Railway.

- a. Jetalsar-Rajkot 46.21 miles opened in 1893
The shares of Junagadh, Gondal, Rajkot and Jetpur are in the proportion of 6:6:2:2 in a rupee in the working of this line. This railway is at present worked by Gondal State Railway. Junagadh applied but the Railway Board in 1926-27 decided to extend the period of Gondal management for a further period of 10 years.

VIII. Porbandar State Railways.

- a. Agreement between Gondal and Porbandar in 1887. (1935-36 Report).
Dhoraji-Porbandar line constructed in 1890.
Tribunal awarded to Porbandar from Porbandar to Jamjodhpur-section of 36.04 miles.
Hence since 1924 Porbandar has taken over the management of this line.
- | | |
|---|--------------|
| b. Porbandar to Stone Quarries at Ranavav | 3.70 miles |
| c. Porbandar Docks | 1.55 miles |
| Total | 41.29 miles. |

APPENDIX B.—(Contd).

IX. Dhrangadhra State Railways.

a. Wadhwan to Dhrangadhra	21 miles	1898
Dhrangadhra to Halavad	20 "	1914
Dhrangadhra Quarry siding	2.56 "	
Till October 1919 this line was worked by the Bhavnagar State Railway but since then it is worked by the B. B. & C. I. Railway.		
b. Kuda Extension	10.5 miles.	

APPENDIX C.

Appendix giving the list of Industrial Concerns in the City of Bhavnagar City proper in 1933-34.

Name of Industry.	Number.
Printing Presses	14
Soap Factories	8
Flour Mills	41
Cotton Thread Machines	3
Steel Trunk Preparing Concerns	2
Gold Thread	1
Oil Mills	6
Wood Furniture Shops	10
Iron	1
Khadi making Concerns	5
Ginning Factories	4
Presses	4
Soda Water Concerns	3
Ice Factories	3
Saw Mills	7
Sugar Candy preparing concerns	3
Revadi	9
Carved Wooden Box preparators	—
Iron Scales Preparators	—
Toys Preparators	—
Brass and Copper utensils preparing concerns	1
Mills	2
Chemical Works	1
Tin plate Colouring works	1
Confectionery	1
Match Factory	1
Electric Battery Cell Preparators	1
Cement Tiles Factory	1
Tin Factory	1
Wool Condories	—

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ગુજરાતના પ્રાચીન અવશેષોની તપાસ

લેખક :—રણછોડલાલ ઘ. જ્ઞાની.

લગભગ છ માસ પહેલાં ગુજરાત સંશોધન મંડળ તરફથી ઇતિહાસ અને સંસ્કૃતિ સમિતિના મંત્રીએ એક નિવેદન બહાર પાડ્યું હતું જે શુદ્ધિપ્રકાશ, ગુજરાત શાળા પત્રક, નવચેતન અને કાર્યસ ગુજરાતી સભાના ત્રૈમાસિક ઈ. જેવી સાહિત્ય ક્ષેત્રની પ્રતિષ્ઠિત પત્રિકાઓમાં પ્રકાશિત થયું હતું અને એની પ્રતિલિપિઓ ગુજરાતના દરેક જિલ્લાના શિક્ષા વિભાગના તેમજ લોકલ બોર્ડના અધિકારીઓની સેવામાં મોકલવામાં આવી હતી. આ પ્રમાણે એ વિગતિની ૫૦૦૦ નકલો આખા ગુજરાતમાં વહેંચી બ્રિટિશ રાજ્યાંતરગત ગુજરાત તેમજ કાઠિયાવાડ અને કચ્છના વિવિધ પ્રદેશોના અમલદારો વહીવટદારો, મામલતદારો, શાળાના અધ્યાપકો તેમજ ગામના મુખીઓ, તલાટીઓ વગેરેને નિવેદન કરવામાં આવ્યું હતું કે તેમણે મહેર-બાની કરી પોતપોતાના તાલુકા કે ગામમાં આવેલાં જૂની ઇમારતોના ખંડેર, વાવ, શિલાલેખ, પાળિયા કે તામ્રપત્રાદિ પુરાતન સામગ્રીની નોંધ તે વિષેની પૂર્ણ માહિતી સાથે અમારી ઉપર મોકલી આપવી કે જેથી અમે ઉપરોક્ત ગુજરાતના અવશેષોનું સંશોધન અને સંરક્ષણ ના કામમાં અમને મદદ મળે. પરંતુ જણાવતાં દુઃખ થાય છે કે એના ઉત્તરમાં અમારી પાસે માત્ર ૧૩ ઉત્તરો આવ્યા છે જેમાંથી ૮ ખેડા જિલ્લાના કેટલાક ગામડાઓની શાળાનાં શિક્ષકોના છે. ભરૂચ, સુરત અને નવાનગરના ગામોમાંથી તેમજ અમદાવાદ અને અમરેલીથી માત્ર એકેક સજ્જને જવાબ લખી મોકલવા મહેરબાની કરી છે. બાકી આખા ગુજરાતના વિદ્વાન વર્ગ, શહેરોના પ્રતિષ્ઠિત પુરુષો, તથા શિક્ષણ સંસ્થાઓના અધિકારીઓ ઈ. એ એ વિષે ઉદાસીનતાજ સેવી છે, એ ખરે-ખર શોચનીય વસ્તુ છે.

જ્યારે ભારતવર્ષના અન્ય પ્રાંતોમાં વિદ્વાનો અને નાગરિકો તેમજ ગામડાના લોકો સંશોધન મંડળોના કામમાં સક્રિય ફાળો આપી પોતાની માતૃભૂમિના પ્રાચીન ઇતિહાસ અને સંસ્કૃતિ સંબંધી શોધખોળમાં સહાયક બની વિદેશી વિદ્વાનોના પક્ષપાત પૂર્ણ અને અધૂરા ઇતિહાસ ગ્રંથોને ખોટા ઠરાવી નવીન અને ગૌરવપૂર્ણ ઇતિહાસ રચી કરવા ભાગ્યશાળી થયા છે ત્યારે ગુજરાત, ગરવી ગુજરાતના સંતાનોએ, સમસ્ત હિંદના ઇતિહાસના ધડતર અને સંસ્કૃતિના પ્રચારમાં અત્યંત યશસ્વી નિવડનાર મહાપુરુષોના વંશજો એ આટલું બધું પોતાના પ્રાચીન ગૌરવ પ્રત્યે દુર્લક્ષ કરવું અગર ઉદાસીન રહેવું ન શોભે. અમે તો માનતા હતા કે અમારા નિવેદનના ઉત્તરમાં જે માહિતી મળશે તેને આધારે સમસ્ત ગુજરાતના પ્રાચીન અવશેષોની સવિસ્તર ઐતિહાસિક નોંધ સાથેની યાદી અમે ગુજરાતી પ્રજા સમક્ષ રચી શકીશું, પરંતુ આવી પરિસ્થિતિમાં હતાશ થવું પડે છે.

કાર્ષણ વિદ્વાન કે સંશોધક ગુજરાતના વિશાલ પ્રદેશમાં જાતે ફરી વળી તમામ પ્રાચીન સ્થળોની નોંધ લઈ ગામેગામે રહવડતા પ્રાચીન શિલાલેખો, મૂર્તિઓ અને પાળિયા તથા શિલ્પના નમૂનાઓની નોંધ તથા સંગ્રહ એકલે હાથે કરી શકે જ નહિ. તેને માટે તો દરેક સ્થળના સ્થાનિક અમલદારો તેમજ નિવાસીઓ દ્વારા પૂર્ણ સહકાર મળે તોજ એ કામ પૂરું કરી શકાય, પ્રાચીન અવશેષોને સુરક્ષિત કરી શકાય અને તેને આધારે ઐતિહાસિક નોંધ તથા સાંસ્કૃતિક સાહિત્ય સર્વસાધારણને ચરણે ધરી શકાય.

અમારી પાસે જે ઉત્તરો આવ્યા છે તેમના ગ્રેરોકો અને મોકલવનારાઓને અમે ધન્યવાદ આપીએ છીએ અને જણાવવા માંગીએ છીએ કે એ પ્રાચીન અવશેષોને સુરક્ષિત રાખી એમની નોંધ લઈ ઘટતું કરવા અમે પ્રયાસ કરીશું. એ અવશેષોના અભ્યાસને આધારે જે કંઈ ઐતિહાસિક કે સાંસ્કૃતિક પ્રકાશ અમે પાડી શકીશું એનો યશ આપને જ છે. અમે એ સંજ્ઞાનોના ઉત્તરો નો સારાંશ નીચે પ્રકાશિત કરીએ છીએ કે જેથી અન્ય બંધુઓને પણ માર્ગ સૂચન કે ગ્રેરણા થાય અને તેઓ પણ પોતપોતાના ગામના પ્રાચીન અવશેષોની નોંધ કરી અમને મોકલી આપે.

૧. અમદાવાદ—અહીંથી શ્રી. અંબાલાલ રણછોડલાલ ભટ્ટે ભુદ્ધિપ્રકાશમાં હીરાલાલ પારેખ અંકમાં પ્રકટ થયેલી અમારી વિગતિથી ગ્રેરાઈ એક સૌજન્યપૂર્ણ પત્રમાં પોતાની ઓળખાણ અને પોતાના કાર્યની જાણ કરાવતા એમણે અમદાવાદની આસપાસથી પ્રાચીન કણ્ઠાવતીના અવશેષો જેમકે આશાભીલનો ચોતરો અને અમદાવાદના વસવાટ પહેલાંની મૂર્તિઓ જેની ઉપરના લેખોને આધારે તેમના ઐતિહાસિક મહત્ત્વ અને મૂર્તિઓની કળાને આધારે પ્રાચીન ગુજરાતના મૂર્તિશિલ્પ પર પ્રકાશ પાડી શકાય છે. ગુજરાત સમાચારના દિવાળી અંકમાં ૩૦ ડિસેમ્બરે ગુજરાતી શિલ્પકળા વિષે લખેલા લેખની તેમ જ માર્ચ ૧૯૩૮ ની આરોગ્ય પત્રિકામાં પ્રકાશિત બધી મૂર્તિઓ અને પ્રાચીન અવશેષો લાઇ શ્રી. અંબાલાલ ભટ્ટે પોતે શોધી સર ચીતુભાઈને બંગલે સંગ્રહિત કર્યાનું લખી જણાવે છે. અમે એ ભાઈને એમના કાર્ય અને ઉત્સાહ માટે ધન્યવાદ આપીએ છીએ અને જણાવવા માંગીએ છીએ કે એમની ઇચ્છા હશે તો એ બધી મૂર્તિઓ મુંબઈના સંગ્રહસ્થાનમાં સુરક્ષિત રખાવી તેમના ઐતિહાસિક મહત્ત્વ અને શિલ્પકામ પર પૂરતો પ્રકાશ પાડવા અમે પ્રયાસ કરીશું જે લેખો વગેરે વાંચી શકાયા ન હોય તેમની છાપ મોકલી આપશો તો તે વંચાવી ઘટતું કરવા પણ અમે પ્રયાસ કરીશું.

૨. અમરેલીથી શ્રી. પ્રતાપરાય ગિ. મહેતા તરફથી અમારૂં પરિપત્ર ભરીને એમાં માંગેલી માહિતી સહ મોકલવામાં આવ્યું છે. એમાં બહુજ સંક્ષેપથી ખેડૂતોના તેમ જ સરકારી કબજામાં આવેલી જમીનમાં આવેલા પ્રાચીન અવશેષો અને ટિંબા હોવાનો ઉલ્લેખ કરવામાં આવ્યો છે અને વડોદરા રાજ્ય તરફથી થતા ખોદકામ તરફ અમારૂં ધ્યાન આકર્ષિત કરવામાં આવ્યું છે જેને આધારે ત્યાં થયેલા પુરાતત્ત્વાન્વેષણની નોંધ અમે લઈ શકીએ. અમે શ્રી. મહેતાને એ ઉત્તર માટે ધન્યવાદ આપીએ

છીએ પરંતુ સાથે જ જણાવવા માંગીએ છીએ કે એમના જેવા વિદ્વાન અને સંશોધક પાસેથી તો અમે અમરેલીના પ્રાચીન અવશેષો, તત્સંબંધે થયેલા અન્વેશણ અને મળેલી વસ્તુઓ ઈં વિષે સવિસ્તર અને સચિત્ર લેખની આશા રાખીએ છીએ કે જેથી અમે ગુજરાત સમક્ષ એમણે કરેલા કાર્ય અને અમરેલીના પ્રાચીન મહત્વ વિષે આ ત્રૈમાસિકમાં નોંધ લઈ એમનો લેખ પ્રકાશિત કરી શકીએ અને અન્ય વિદ્વાનોને પણ તેમ કરવા પ્રેરી શકીએ.

૩. કોલિયાદ (પાલેજ થઇને) જિલ્લા ભરૂચથી શ્રી. શિવાભાઈ ડી. પટેલે કોલિયાદ (તા. કરજણ વડોદરા રાજ્યોત્તરગત) સ્થળે આવેલા પ્રાચીન અવશેષોની સવિસ્તર નોંધ લખી મોકલી છે. તેમના અમે આભારી છીએ. તેમણે આ સ્થળે આવેલી એક સુંદર ૨૪૫ ફીટ લાંબી અને ૩૨૫ ફીટ પહોળી વાવની નોંધ લીધી છે જે સારી હાલતમાં છે અને સાર્વજનિક છે. સરકાર તરફથી થોડાંક વર્ષ પર અહીં સમાર કામ થયું હતું પણ ફરીવાર ઉગેલા છોડ વગેરે સાફ કરાવી સુંદર શિલ્પ સુરક્ષિત રાખવાની જરૂર છે. આ વાવ ગામથી ઉત્તરદિશાના સિમાડાપર કાસમપીરના કબરસ્તાનની પૂર્વે આવેલી છે. તેમના પગથિયાં, પડથાર અને વિસ્તાર ૧૦ અત્યંત કળામય છે. ગુજરાતની કમાનોવાળી જવલેમળી આવતી વાવોમાંની આ એક છે અને એમાં આઠ માળ છે. માળેમાળે એકેક કમાનનો વધારો છે ઇં સુંદર વર્ણન શ્રી. શિવાભાઈએ આપ્યું છે તેની અમે સાભાર નોંધ લઈએ છીએ. એની પ્રાચીનતા વિષે અમે એ ભાઈના મતથી મળતા નથી કારણ કે આવી કમાનો વાળી વાવો ગુજરાતમાં મુસ્લિમકાળમાં જ અસ્તિત્વમાં આવી હતી એટલે સોળમી સદી પહેલાની આ વાવ નહિ હોય એમ અમે માનીએ છીએ. એ વિષેની પુરાતત્વ ખાતાએ પણ નોંધ લીધેલી છે. અનુકૂળતાએ એનો ફોટો લેવરાવવા અમારી ઇચ્છા છે.

૪. બારોલીઆ મહાલ ચિખલી જિલ્લા સુરતથી શ્રી. કસનજી ફકીરભાઈ દેસાઈ એ બારોલીઆ ગામની હદમાં આવેલા પ્રાચીન અવશેષોની નોંધ લખી મોકલી છે. તેમના અમે આભારી છીએ. તેઓ જણાવે છે કે મૂળ આ ગામ અને તેની આસપાસ લગભગ સાતેક માઇલ જેટલા વિસ્તારમાં ધરાનગરી નામક પ્રાચીન શહેર હોવાનું કહેવાય છે. અને વસ્તુતઃ ઠેકઠેકાણે રાજની ભેટક અને ખીજા અવશેષોનું અનુસંધાન મળે છે. ગામની હદમાં કેટલાંક ખેતરોમાં પાળીઆ અથવા કાતરેલી શિલાઓ છે જેમાં અહીં થએલી કેટલીક લડાઈઓના સંકેત મળે છે અને એ વીરશિલાઓમાં શિલાલેખો પણ છે. આમાંથી એકમાં સંવત ૧૩૯૬ વંચાય છે. આવી વીરશિલાઓ પૈકી એકની હનુમાન તરીકે પૂજા પણ થવા માંડી છે. એમનો અભિપ્રાય એવો છે કે આ ગામમાં ભુદાં ભુદાં ખેતરોમાં (જેમના નામનિર્દેશ સાથે આ ભાઈએ લખી મોકલવા કૃપા કરી છે) પડી રહેલા અવશેષોને અહીં એક મકાન બાંધી તેમાં સુરક્ષિત રાખી શકાય તો સાફ. અમારું માનવું છે કે તેઓ સ્થાનિક ખેડૂતોની સહાયથી આવા અવશેષો એક સ્થળે ભેગા કરી સાધારણ છાપરા નીચે એક સ્થળે ભેગા કરે તો પુરાતત્વખાતાના અધિકારીઓનું ધ્યાન એ સંગ્રહના મહત્વ તરફ દોરી કદાચ ઘટું કરી શકાય. અમારા પ્રતિનિધિએ આજી આવે ત્યારે તેમને આ બધા

અવશેષો બતાવી ફોટા વગેરે લેવાની સુવિધા શ્રી. કસનજીભાઈ કરી આપશે એવી અમે આશા રાખીએ છીએ.

૫. જોડિયા (કાઠિયાવાડ) સંસ્થાન નવાનગરથી શ્રી. હરિલાલ રંગીલદાસ માંકડ લખે છે કે કુનડ (તા. જોડિયા) ગામ નજીક હનુમાનની જગ્યા છે. એની આથમણી બાબુએ જૂના ગામના ખંડેર છે તે કુન્ડનપુર કે કનકાવતી નગરીના છે એમ કહેવાય છે. અહીંથી ખેડૂતોને કેટલીક વાર ગધેયા સિંકા મળે છે. એ ખંડેરોની વચમાં નદી વહે છે અને દૂર દરિયો દેખાય છે તે પરથી તે સ્થળની પ્રાચીન જાહે-જલાલી અને રમ્યતાનો ખ્યાલ આવે છે. અમે શ્રી. હરિલાલ માંકડને ધન્યવાદ આપીએ છીએ અને ઇચ્છીએ છીએ કે તેઓ કોઈવાર આ ખંડેરોમાં ખોદકામ કરાવી શકે તો કદાચ વધુ અગત્યની વસ્તુઓ મળી આવે. માર્ગસૂચન માટે કોઈવાર સંશોધન મંડળના એકાદ પ્રતિનિધિને એ તરફ મોકલવા વિચાર છે દરમિયાન શ્રી. માંકડ શોધ ચાલુ રાખે એમ ઇચ્છીશું.

૬. પિઠાઇ તાલુકા કપડવંજ જિલ્લા ખેડાથી લોકલમોર્ડ સ્કૂલના મહેતાજી શ્રી. મોહનલાલ મથુરાદાસ શાહ લખી જણાવે છે કે પિઠાઇ ગામની આસપાસ જૂના શહેરના ખંડેર છે. અહીં સુરાવચી નામક પ્રાચીન નગરી હોવાનું કહેવાય છે અને પિઠેશ્વરી નામક દેવીનું ભવ્ય દેડું હતું તે ભાંગીને મુસલિમ કાળમાં એના સાધનો-માંથી મસ્જિદ બંધાઈ છે. એ પિઠેશ્વરીના અપભ્રંશરૂપ પિઠાઈ નામથી હાલ એ ગામ જાણીતું છે. પ્રાચીન મંદિરના ખંડેરમાંથી કેટલીક મૂર્તિઓ મળે છે તેમાંથી જમણી સૂંઢના ગણપતિ અને ઇંદ્રની મૂર્તિ ઉલ્લેખનીય છે. અમે શ્રી. શાહના એમણે આપેલી માહિતી માટે આભારી છીએ અને તેનો યથા સમયે ઉપયોગ કરી વિશેષ અન્વેષણ કરવાની આશા રાખીએ છીએ.

૭. વાડોલ તાલુકા કપડવંજ જિલ્લા ખેડાથી વાડોળની શાળાના શિક્ષક શ્રી. ઝીણાભાઈ શિવાભાઈએ આ ગામમાં આવેલા અવશેષોની નોંધ કરી મોકલી છે. તેમના અમે આભારી છીએ, તેઓ જણાવે છે કે અહીં એક જૂનો ફેર દૂવો છે અને તેના થાળા નીચે શિલાલેખ છે જે જૂનો હોવાથી ત્યાં કોઈથી વાંચી શકાતો નથી. ગામની આસપાસ જૂના કોટનું પણ ભાંગી તૂટી સ્થિતિમાં અસ્તિત્વ છે. આ કોટથી ઇશાન તરફ મહાદેવના પ્રાચીન દેરાના અવશેષો છે. પૂરાઈ ગયેલી વાવ છે. અને ખેતરોમાં કેટલાક પાળિયા પણ છે. અમે શ્રી. ઝીણાભાઈને નિવેદન કરીએ છીએ કે તેમણે કૃપા કરી એ બધા પાળિયા, લેખ અને મૂર્તિઓ ઇ. જે મળી આવે તે સ્થાનિક અધિકારીઓ અને ગામના લોકોની સહાયથી એક સ્થળે એકત્રિત કરવા તજવીજ કરવી કે જેથી એ સંગ્રહિત અવશેષોમાંથી પ્રેરણા મળી શકે.

૮. રાહાતળાવ તાલુકા આણંદ જિલ્લા ખેડાથી અહીંની શાળાના હેડમાસ્ટર શ્રી. અંબાલાલ શંકરલાલ જોશી લખી જણાવે છે કે અહીં લગભગ સો વિધાના વિસ્તારનું સુકાઈ ગયેલું એક તળાવ છે જે સિદ્ધરાજે બંધાવ્યાનું કહેવાય છે. અહીં હવે તો ખેતરે થઈ ગયા છે. તળાવની પાળો અને આસપાસ મૂળ દેરીઓના પથ્થર જથ્થાબંધ મળી આવે છે. આવા પુષ્કળ પથ્થરોનો ઉપયોગ રેલવે લાઈન નંખાઈ ત્યારે એ ખાતાના

અધિકારીઓએ કરેલો હોવાથી ઘણી ખરી શિલ્પવાળી શિલાઓ નાશ પામી છે. આ ખખર બહુ ખેદજનક છે પરંતુ જાગ્યા ત્યાંથી સવારમાંની હવે પછીથી એવા પ્રાચીન અવશેષો સુરક્ષિત રાખવા પ્રયાસ થાય તો સાફ.

૯. બેરસદ જિલ્લા ખેડાથી બેઝસદ મુખ્ય સ્કૂલના હેડમાસ્તર સાહેબ લખી જણાવે છે કે બેરસદમાં પેશ્વાઈ વખતની એક વિશાળ વાવ છે તેમાં એક શિલાલેખ પણ છે. અમે હેડમાસ્તર સાહેબના આભારી છીએ. અને એ વાવના લેખની છાપ મોકલવા એમને વિનંતિ કરીએ છીએ કે જેથી એ વાવ અંધવનારના નામ અને સાલ વગેરેની માહિતી મેળવી પ્રકાશિત કરી શકાય. અમારી જાણ પ્રમાણે તો એ લેખ સંવત ૧૫૫૩ ના શ્રાવણ વદ ૧૩ નો છે અને તેમાં વસૂ સોમા નામક વ્યક્તિ એ આ વાવ અંધાગ્યાનો ઉલ્લેખ છે. ૧૮૭૨ માં તે સાફ કરવામાં આવી હતી.

૧૦. બેરાવાડા જિલ્લા ખેડાથી ખુમાળ તીતાળ સવા મારફત માહિતી મેળવી મોકલનારથી જેઠાલાલ મગનલાલ લોકલખોડ સ્કૂલના માસ્તર સાહેબના અમે આભારી છીએ. તેઓ જણાવે છે કે આ સ્થળે કોઈ જૂનું કિલ્લાઅંધીવાળું ગામ હોવાનાં ચિહ્નો છે. જૂનો કોટ, અધિક ઉર્ધ્વ અગિયા કાકાનું દેડું ઢાંસી માતાનું દેડું વગેરે પ્રાચીન સ્થળો ઉપરાંત ગામની ઉત્તરે સાંયળીઆ મહાદેવનું જૂનું મંદિર છે. આ અંધી ધમારતોમાં કાળો પથ્થર વપરાયો છે અને શિલ્પકામ સાફ છે. પેશ્વાઈ વખતમાં આ સ્થળની જાહેજલાલી સારી હશે એમ તેઓ માને છે અને જણાવે છે કે ગામના વૃદ્ધો કહે છે કે આ સ્થળ પહેલાં બાપાવાડ હતું પણ હવે બેટાવાડ કહેવાય છે. અહીં ઇશાન તરફ પૂર્વપશ્ચિમ વહેતી વરાંસી નદી છે તેના કેટલાક આરાઓ (ઘાટ) ના લશ્કરીઆરો, વાડીઆરો, કુતુંબલીઆરો વગેરે નામો પરથી અસલ જાહેજલાલીના સમયની યાદ તાજ થાય છે. વગેરે. અમે ઇચ્છીશું શું કે અહીંના અવશેષોનું વિશેષ શાસ્ત્રીય વિવેચન કોઈ વિદ્વાન લખી મોકલે તો વધુ જાણવાનું મળે અથવા શ્રી. જેઠાલાલ એ અવશેષોની વિશેષ માહિતી અમને લખી મોકલી શકે તો અમારા કોઈ પ્રતિનિધિ જાતે એ સ્થળની તપાસ કરવા આવી શકે.

૧૧. વાસદ જિલ્લા ખેડાથી ત્યાંની સ્કૂલના હેડમાસ્તર શ્રી. લલુભાઈ ત્રિકમલાલ પટેલ લખી જણાવે છે કે વાસદથી એક માઇલને અંતર મહીનદી છે ત્યાંથી એ ફર-લોંગ જેટલે છોટે ઠાકારની રાજધાનીનું પ્રાચીન સ્થળ છે. તે મહેલ અત્યારે ખંડેર હાલતમાં છે. બીજા અવશેષોમાં એક ફેરફૂવો છે જેમાં મૂળ ૧૨૫ બારીઓ હોવાની દંતકથા છે પણ હાલ તો માત્ર ૧૨ બારીઓ અને એક ભોંયડું જણાય છે. અમે શ્રી. લલુભાઈનો આભાર માનતાં જણાવી શું કે તેઓ એ ઠાકાર કાણુ હતા? અને એમનો સમય કયો હતો? એ ખંડેરોમાંથી કંઈ પ્રાચીન શિલ્પ સ્થાપત્યના અવશેષો મળી આવે છે કે નહિ ૬૦ બાબતો પર અને વાવની અત્યારની હાલત પર વધુ પ્રકાશ પાડવાની કૃપા કરે તો સાફ કે જેથી વિશેષ અન્વેષણ થઈ શકે.

૧૨. સરસવણી કુમારઆમા તાલુકા મહેમદાવાદ જિલ્લા ખેડાથી ત્યાંની શાળાના હેડમાસ્તર શ્રી. શિવશંકર નાથજીભાઈ ભટ્ટ જણાવે છે કે હળદરવાસ અને

હાથનોલીની વચમાં એક પુરાણી વાવ છે તે પૂરાઈ ગયેલી છે. સ્થાનિક દંતકથા એમાં સુવર્ણ રથ હોઈ તેપર મણીધરનાગની રક્ષા હોવાનું કહે છે તેથી કહે છે કે કોઈથી ખરી તપાસ થતી નથી. અમે શ્રી. શિવશંકર ભાઈનો આભાર માનતાં એમને નિવેદન કરીએ છીએ કે તેમણે કૃપા કરી જણાવવું કે એ વાવનું બાંધકામ કેવું છે ? તેનો વિસ્તાર કેટલો મોટો છે ? અને જમીનની સપાટી પર એના અવશેષો કેટલા પ્રમાણમાં બાકી રહ્યા છે ? એ માહિતીને આધારે એના પ્રાચીનત્વની ખાતરી થયેથી કોઈ નાગપાંચમને દિવસે એ નાગ દેવતાને મનાવી સુવર્ણરથ કાઢવા કોઈક સંશોધકને એ તરફ મોકલવા તજવીજ કરીશું.

૧૩. ઉમરેક જિલ્લા ખેડાથી ત્યાંની મુખ્ય સ્કૂલના હેડમાસ્તર સાહેબ લખી જણાવે છે કે ત્યાં એક હનુમાનનું મંદિર છે જે હિન્દી સન ૧૦૮૭ માં બેરસદના રંગુલ (પેશ્વાના પ્રતિનિધિ) એ બંધાવ્યાનો ઉલ્લેખ ત્યાંના દરવાજાના શિલાલેખથી મળે છે. તદુપરાંત ભદ્રકાળીમાતાનીવાવ પણ છે જે સિદ્ધરાજ જયસિંહની માતા મીનળદેવી એ વિક્રમસંવત ૧૧૫૨ માં બંધાવ્યાનું કહેવાય છે. વિશેષમાં તેઓ જણાવે છે કે અહીં બીજા પણ કેટલાક લેખો છે જે વિષે વિશેષ માહિતી મેળવવા અગર ફોટો પાડવા તમારા પ્રતિનિધિને અહીંના રણછોડલાલ પુરુષોત્તમદાસ દવેને મળવાની સૂચના સહ મોકલશે. અમે ઉપયુક્ત હેડમાસ્તરસાહેબની સૂચનાનો સાભાર સ્વીકાર કરી તે વિષે ઘટતું કરવા ખાતરી આપીએ છીએ. દરમિયાન શ્રી. દવે પાસેથી પત્રદ્વારા બાકીના લેખોસંબંધી લેખિત માહિતી મળે એમ ધૃષ્ટીએ છીએ.

૧૪. પાટણ હાથસ્કૂલના હેડમાસ્તર સાહેબ શ્રી. બા. ક. ધોળકિયા પાટણના કેટલાક પ્રાચીન સ્થળોનો અને વડોદરા રાજ્યના પુરાતત્વ વિભાગના અહીં ચાલતા કાર્યનો ઉલ્લેખ કરી પ્રાચીન અણહિલવાડાના ખંડેરોમાં ખોદકામ કરવાથી પ્રાચીન વસ્તુઓ નિકળવાનો સંભવ હોવાનું સૂચવે છે.

૧૫. માહેજ તા. મહેમદાવાદ જિલ્લાખેડાથી શ્રી. કેશવલાલ ગુલાબચંદ શાહ ત્યાંની વણજરાની વાવનું પડીભાંગી સ્થિતિનો ઉલ્લેખ કરી જીર્ણોદ્ધારની આવશ્યકતા દર્શાવે છે. વાવમાં બે લેખ હોવાનું જણાવે છે જેમાંથી એક ખુલ્લો છે અને બીજો ઉપરથી બીજો પથ્થર પડવાથી ઢંકાઈ ગયો છે. જાપ લઈ શકાય એમ નથી. અમે એના ફોટો તથા જાપ મેળવવાની ઘટતી વ્યવસ્થા કરીશું.

૧૬. સાકુજ જિલ્લા ખેડા તા. મહેમદાવાદથી ત્યાંના કુમાર શાળાના હેડમાસ્તર શ્રી. શં. વા. પાંડે અહીં વીરેશ્વર મહાદેવનું દેડું અને કવિ શામળદાસનું સ્થળ છે જે લોકોના તાબામાં છે. તેને સમરાવવાની જરૂર છે. અસલ એ ગામ માતર તાલુકામાં હશે એમ કવિ શામળની એક કવિતામાંથી જણાય છે.

૧૭. દારકાથી શ્રી. કલ્યાણરાય ન. જોશી ત્યાંના એન. ડી. એચ. વિદ્યાલયના મુખ્ય શિક્ષક) દારકાની ભૂમિમાં તેમજ ઓખામંડળ, વડોદરા રાજ્યમાં આવેલા જુદાં જુદાં ૩૪ સ્થળોની યાદી મોકલી આપી છે અને જણાવે છે કે તે પૈકી જે સ્થળોનો ફોટો જોઈશે તે તેઓ મોકલી આપશે. તદર્થે તેમનો આભાર. સમય આવે એમના સહકારનો લાભ લઈશું.

૧૮. એમ. એમ. હાથરકૂલ સોજીત્રાના હેડમાસ્તર સાહેબ શ્રી. વિકુલભાઈ પટેલે સોજીત્રા સ્થળની પ્રાચીન દંતકથાઓ અને ત્યાંના પ્રાચીન સ્થળોની માહિતી બહુ સુંદર રીતે લખી મોકલી છે. તેમણે ત્રણ સ્થળો વિષે વિસ્તારથી લખ્યું છે. (૧) શ્રી. અન્નપૂર્ણામાતાજીનું મંદિર, તેમાંની સુવર્ણ પ્રતિમા અને બીજી સં. ૬૧૬ થી ૧૫૭૫ સુધીના સાલની નોંધવાળી પ્રતિમાઓ (૨) બોબ્બા માતાનું મંદિર અને તેનો લેખ તથા કુંડ અને તેના લેખની નકલ ૪૦ સહિતની સવિસ્તર હકીકત લખી મોકલી છે. તે માટે અમે તેમના આભારી છીએ. એ મૂર્તિઓ અને લેખોનું એકત્ર પ્રકાશન થાય એ ઇચ્છવા યોગ્ય છે.

આ પ્રમાણે થોડક ઉત્તરે અમને મળ્યા છે. એમાંની કેટલીક માહિતીનો અમે ઉચિત સમયે ઉચિત ઉપયોગ કરીશું, અને એ મહાનુભાવોને અમારી તપાસને અંગે મળેલી વાસ્તવિક ઐતિહાસિક વિગતોથી વાકેફ કરીશું. પરંતુ માત્ર આટલા ઉત્તરોને આધારે સમગ્ર ગુજરાતના પ્રાચીન અવશેષો વિષેનું અમારું કામ અમે હાથ ધરી શકીએ એમ નથી. દરેક દરેક તાલુકાથી અને ગામે ગામથી ત્યાંના સ્થાનિક અમલદારો, શિક્ષક મહાનુભાવો અને અન્ય ઇતિહાસ રસિક સજ્જનો અમને પોતપોતાના ગામ, તાલુકા અને જિલ્લામાં આવેલાં પ્રાચીન અવશેષોની યાદી તેની ઐતિહાસિક માહિતી પ્રચલિત દંતકથાઓ સહ શિલાલેખોની છાપ અને અવશેષોનો ફોટો વગેરે પણ બની શકે તો મોકલી સહકાર આપે તો એ કાર્ય સરલ અને શક્ય અને માટે અમે ફરીથી ગુજરાતની ગૌરવાન્વિત પ્રજાને વિનંતિ કરીએ છીએ કે તેમણે એ દિશામાં પોતાથી બનતી મદદ આપવા મહેરબાની કરવી અને આ સાથે આપેલા કાઠાની માગેલી વિગતો પૂરી પાડવા ઉચ્ચત થવું કે જોઈએ અમારું મંડળ એમની વિશેષ સેવા કરી શકે.

નીચે આપેલી બાબતો આપના સ્થાનિક પ્રાચીન અવશેષોની ભરી મોકલશો તો ઉપકાર થશે.

સ્થળે આવેલા પ્રાચીન અવશેષોની યાદી

- ૧ અનુક્રમ.
- ૨ જિલ્લો.
- ૩ સ્થળે કે ગામ.
- ૪ પ્રાચીન વસ્તુ કે અવશેષનું નામ અને વર્ણન.
- ૫ તે વિષેની ઐતિહાસિક માહિતી
અગર સ્થાનિક લોકવાયકા કે
(દંતકથા)
- ૬ એ પ્રાચીન વસ્તુ કે અવશેષ ઉપર
હાલ કેનો કબજો છે ?
- ૭ એ અવશેષ અત્યારે કેવી
સ્થિતિમાં છે ?
- ૮ એનું સંરક્ષણ કરવાનું આવશ્યક
અગર બની શકે તેમ છે ?
- ૯ એ ધર્મારત, અવશેષ કે પ્રાચીન
વસ્તુનો ફેટો કે રેખાચિત્ર મળી
શકે એમ છે ?
- ૧૦ ધર્મારતનો ફેટો કે શિલાલેખ
હોય તો તેની છાપ લઈ મોકલશો ?
[તે માટે જોઈતું સાધન અમે
પૂરું પાડીશું.]
- ૧૧ અન્ય વિગતો.
માહિતી પૂરી પાડનારની સહી.

હિંદુ મૂર્તિવિજ્ઞાનનું પ્રાચીન સાહિત્ય

મૂર્તિ શબ્દનો સાદો અર્થ પ્રતિકૃતિ ગણાયો. તેજ ભાવનાને અનુલક્ષી પ્રભુનું સાકાર સ્વરૂપ સમજવા આપણા ઋષિમુનિઓએ મૂર્તિપૂજનનું વિધાન જણાવ્યું છે. મૂર્તિપૂજન ભારતમાં ઘણા પ્રાચીન કાળથી ચાલી આવી છે. આજે તેનો પ્રચાર ખૂબ ફેલ્યો ફાલ્યો છે. ભારત સિવાયના ઇજિપ્ત, ચીન, અસીરિયા, બેબિલોન અને ગ્રીક દેશોમાં પણ મૂર્તિપૂજનનો પ્રચાર પ્રાકૃતિક છે. તેવા અનેક પુરાવાઓ આજે ઉપલબ્ધ થાય છે.^૧ મૂર્તિવિજ્ઞાન યાને પ્રતિમાશાસ્ત્ર ધણુંજ ગહન છે. તેનો અભ્યાસ ઘણા લાંબાકાળ સુધી કરવામાં આવે તોજ તે સાધ્ય બની શકે છે, તેટલુંજ નહિ પણ તેને અંગે કેટલાંક ધર્મશાસ્ત્રો પણ વિચારવાં પડે છે. આપણા શિલ્પિઓએ તે કળા અદ્વિતીય રીતે હસ્તગત કરી હતી. તે સંબંધી તેમનું જ્ઞાન ઉત્કૃષ્ટ હતું. મૂર્તિકળા એ એક વિશિષ્ટ કળા છે. તેમાં અભ્યાસ, ખંત અને પૂરતી ચોકસાઈ રાખવી પડે છે. તેનાં દરેક અંગ ઉપાંગો ગણિતના નિયમ મુજબ કરવામાં આવે છે. આવા મૂર્તિશિલ્પને લગતાં અનેક ગ્રંથો પ્રાચીનકાળમાં લખાયા છે. તેની કંઈકે જાંખી કરાવવા અહીં પ્રયત્ન કર્યો છે.

મૂર્તિવિજ્ઞાનનાં અનેક અંગો છે. તેમાં દેવ, મનુષ્ય અને પશુપક્ષીઓનો પણ સમાવેશ થઈ જાય છે. તદ્ઉપરાંત પ્રતિમાઓ શાની બનાવવી, કેવી બનાવવી, તેના અંગ ઉપાંગોનું પ્રમાણમાન, આયુધો, મુદ્રાઓ, અલંકારો, વાહનો, પીઠિકાઓ વગેરે બનાવવામાં શાસ્ત્રીયજ્ઞાનની ખાસ આવશ્યકતા હોય છે. આ બધાં વિવેચનોથી સંપૂર્ણરીતે સભર બનેલાં તે વિષયનાં સ્વતંત્ર પુસ્તકો ભારતવર્ષમાં કેટલાંયે રચાયાં છે. હિંદુ મૂર્તિશાસ્ત્ર એટલું સપ્રમાણ અને શાસ્ત્રીય છે કે તેમાં જીણામાંજીણી બાબતોનો પણ વિચાર કરવામાં આવ્યો છે. તે વિષયનાં કેટલાંક પુસ્તકો આજે પ્રકટ થયાં છે, જ્યારે બાકીનાં હજુપણ અપ્રકટ દશા અનુભવી રહ્યાં છે. અહીં તેવાં કેટલાંક પુસ્તકોની સમાલોચના કરવામાં આવી છે. આ સિવાય પણ બીજા અનેક ગ્રંથો આ વિષયના હશે, પણ જે હજુ સુધી જાહેરમાં આવ્યા નથી. આથી આ સૂચિ સંપૂર્ણ છે એમ કહેવાનો દાવો નથી.

પુરાણોમાં કેટલાકેતો મૂર્તિવિજ્ઞાનના સ્વતંત્ર અધ્યાયો આપ્યા છે. અગ્નિપુરાણમાં વાસુદેવાદિ પ્રતિમાલક્ષણ, પિંડિકાલક્ષણ, શાલિગ્રામાદિ મૂર્તિલક્ષણ, દશાવતાર-લક્ષણ, દેવી પ્રતિમાલક્ષણ, સૂર્યપ્રતિમાલક્ષણ, લિંગલક્ષણ, લિંગમાન, વગેરે વિષયો દર્શાવતા કેટલાક અધ્યાયો આપ્યા છે.^૨ ગરૂડપુરાણમાંથી મૂર્તિશાસ્ત્રને લગતી કેટલીક હકીકત મળી આવે છે. જેમાં શાલિગ્રામના પ્રકારો વિસ્તારથી વર્ણવ્યા છે.^૩

૧ જુઓ હેરિંગસ. એન્સાઇક્લોપીડીયા ઓફ રીલીજીયન એન્ડ ઇથીકસ પા. ૧૧૭ થી ૧૩૨. ૨ અગ્નિપુરાણ અ. ૪૪ થી ૫૫. ૩ ગરૂડપુરાણ અ. ૪૫.

ભવિષ્યપુરાણમાં પ્રતિમાલક્ષણ, પ્રતિમાદ્રવ્યો અને પ્રતિમામાન વગેરે વિષયો વર્ણવ્યા છે.^૪ મત્સ્યપુરાણમાં મૂર્તિવિજ્ઞાનને લગતા ત્રણ અધ્યાયો છે, જેમાં નવતાલમાન, પીઠિકાલક્ષણ, અને લિંગલક્ષણ સંબંધી વિચાર કરવામાં આવ્યો છે.^૫ સ્કંદપુરાણમાંથી શિલ્પને લગતો કેટલોક ભાગ મળી આવે છે. તેમાં પ્રાસાદ, લિંગ, મંડપ, વાસ્તુનિરૂપણ અને શાળિગ્રામ સંબંધક કેટલીક હકીકત નોંધી છે.^૬ આ પ્રમાણે પુરાણોમાંથી મૂર્તિશાસ્ત્રને લગતું કેટલુંક સાહિત્ય ઉપલબ્ધ થાય છે. બ્રહ્મ-સંહિતામાં પ્રતિમાલક્ષણ અને વજ્રલેપવિધિનાં વિવેચનો છે તેમાં પ્રતિમા સંબંધી તથા ખંડિત, સ્ફુટિત અને ભગ્નપ્રતિમાઓનું સંધાન કરવાના વજ્રલેપની અનન્ય હકીકત રજૂ કરાઈ છે.^૭

પુરાણોની માફક આગમોમાં પણ મૂર્તિવિધાનના ખાસ વિષયો રચવામાં આવ્યા છે. આગમોની કુલસંખ્યા ૨૮ ની ગણાય છે. તેનો પ્રચાર ગુજરાત કરતાં દક્ષિણમાં વધુ જોવામાં આવે છે. આર્યાવર્તમાં પુરાણો અને શાસ્ત્રોની જે મહત્તા છે તેથી પણ અધિક મહત્તા દક્ષિણમાં આગમોની માનવામાં આવે છે. આ આગમોમાં હિંદુ ધર્મને સ્પર્શ કરતા દરેક વિષયો ચર્ચવામાં આવ્યા છે. અર્થાત તે બધા ગ્રંથો આપણા ધર્મશાસ્ત્રોજ છે. આગમોપૈકી કેટલાકમાં મૂર્તિવિજ્ઞાન અને મૂર્તિ-પૂજના વિવિધ પ્રયોગો આપ્યા છે. તદ્દુપરાંત શિલ્પશાસ્ત્રને લગતું કેટલુંક વિશિષ્ટ સાહિત્ય તેમાંથી મળી આવે છે.

કામિકાગમમાં મૂર્તિશાસ્ત્રને લગતા થોડાક અધ્યાયો છે. તેમાં લિંગલક્ષણ, પ્રતિમાલક્ષણ, દેવતા સ્થાપન વિધિ, પ્રતિમા પ્રતિષ્ઠા વિધાન અને પરિવાર સ્થાપન-વગેરે વિષયો આવ્યાં છે.^૮ કરણાગમમાં લિંગ અને મૂર્તિ સંબંધક સાહિત્ય રજૂ કરતાં તેના પહેલા ભાગમાં લિંગલક્ષણ, મુર્ધનિષ્ઠલક્ષણ, સ્ત્રીપાન દશતાળલક્ષણ, લિંગ સ્થાપન વિધિ, પરિવાર સ્થાપન વિધિ, પિંડિકાપીઠ પ્રતિષ્ઠાવિધિ, અને રત્નલિંગ સ્થાપન પ્રયોગ જણાવ્યો છે જ્યારે બીજા ભાગમાં બિંબશુદ્ધિ અને શિવલિંગ સ્થાપનનું વિધાન વિસ્તારપૂર્વક ચર્ચ્યું છે.^૯

વૈખાનસાગમમાં પ્રતિમાલક્ષણનો સ્વતંત્ર અધ્યાય આપવામાં આવ્યો છે.^{૧૦} સુબ્રહ્મેદા-ગમાંથી મૂર્તિશાસ્ત્રને લગતા કેટલાક અધ્યાયો મળી આવે છે. તેમાં લિંગલક્ષણ, શક્તિલક્ષણ, લિંગપ્રતિષ્ઠાવિધિ, શક્તિપ્રતિષ્ઠાવિધિ, પરિવારવિધાન અને વૃષભસ્થાપન-

૪ ભવિષ્યપુરાણ અ. ૧૨-૧૩૧-૧૩૨.

૫ મત્સ્યપુરાણ અ. ૨૫૮-૨૬૨-૨૬૩.

૬ સ્કંદપુરાણ માહેશ્વર ખંડ અ. ૪૫-૪૭-૪૮.

૭ બ્રહ્મ-સંહિતા અ. ૫-૭.

૮ કામિકાગમ અ. ૬૨-૬૪-૬૫-૬૭-૬૮-૭૨.

૯ કરણાગમ ભા. ૧ અ. ૧૦-૧૨-૫૯ થી ૬૨.

ભા. ૨ અ. ૧૩-૨૧.

૧૦ વૈખાનસાગમ અ. ૨૨.

વિધિ વગેરે અનેક વિષયો આવ્યા છે.^{૧૧} આમ આગમો મૂર્તિશાસ્ત્ર સંબંધી કેટલીક હકીકત પૂરી પાડે છે.

પુરાણો અને આગમો તપાસ્યા પછી શિલ્પશાસ્ત્રના બીજા એવા કેટલાક ગ્રંથો છે જેમાં શિલ્પ સાથે મૂર્તિશાસ્ત્ર પણ આપવામાં આવ્યું છે. માનસાર નામના ગ્રંથમાં ભૂપણ લક્ષણવિધાન, ત્રિમૂર્તિલક્ષણ, લિંગવિધાન, પીઠલક્ષણ, શક્તિલક્ષણવિધાન, જૈનપ્રતિમાનિર્માણ, બુદ્ધમૂર્તિવિધાન, મૂર્તિલક્ષણવિધાન, ચક્ષુવિદ્યાધરવિધાન, લક્ષ્મી લક્ષણ વિચાર, હંસ ગરુડ અને વૃષભ વાહનાદિ નિર્માણ વિચાર, વિવિધ પ્રતિમાવિધાન, દશતાલ લક્ષણ, વગેરેના સ્વતંત્ર અધ્યાયો આપવામાં આવ્યા છે. આ સિવાય પણ બીજા મૂર્તિશાસ્ત્રને લગતા અને તે વિષયો તેમાં ચર્ચ્યા છે.^{૧૨} મયમત શિલ્પશાસ્ત્રમાં મૂર્તિશાસ્ત્રને લગતા ચાર અધ્યાયો મળી આવે છે જેમાં લિંગલક્ષણ પીઠલક્ષણ, અનુકર્મવિધાન, અને પ્રતિમા લક્ષણ વગેરે બાબતો નોંધી છે.^{૧૩} અંશુ-મદ્ભેદ નામના કાવ્યો રચેલા શિલ્પગ્રંથમાં મૂર્તિવિધાન માટે કેટલીક વિશિષ્ટ હકીકતો રજુ કરી છે તેમાં સપ્રમાતૃકલક્ષણ, વિનામકલક્ષણ, પીઠલક્ષણોદ્ધાર, સકળ સ્થાપન વેદી સુખાસનવિચાર, ચંદ્રશેખર લક્ષણ, અષ્ટતાળ લક્ષણ, સપ્રનામલક્ષણ, પરિવાર વિધિ, લિંગલક્ષણ, ઉત્તમદશનામલક્ષણ, મધ્યમ દશનામ લક્ષણ, ઉત્તમ નવતાળ લક્ષણ, મધ્યમ નવતાળ લક્ષણ, અધમનવતાળ લક્ષણ, વૃષવાહન મૂર્તિલક્ષણ, નૃત્ય મૂર્તિલક્ષણ, ગંગાધરમૂર્તિલક્ષણ, ત્રિપુરામૂર્તિલક્ષણ, અર્ધનારીશ્વર લક્ષણ, ગજમૂર્તિ લક્ષણ, પાશુપતમૂર્તિલક્ષણ, કંકાળમૂર્તિલક્ષણ, હર્ષધર્મમૂર્તિલક્ષણ, ભીક્ષાટન મૂર્તિલક્ષણ, જન્દ્યાનુગ્રહલક્ષણ, દક્ષિણામૂર્તિલક્ષણ, કાલમૂર્તિલક્ષણ, લિંગોદ્ભવલક્ષણ, શળપાણિ લક્ષણ વગેરેની વિસ્તૃત ચર્ચા કરવામાં આવી છે.^{૧૪} આ ઉપરથી તેમાં મૂર્તિશાસ્ત્ર માટે સપ્રમાણ ચર્ચા કરવામાં આવી હોવાનું જણાય છે. આ એક અત્યુત્તમ ગ્રંથ છે. વિશ્વકર્મા શિલ્પનામક ગ્રંથમાં મૂર્તિ વિધાનને લગતાં થોડાંક પ્રકરણો છે. તેમાં લક્ષ્મ્યાદિ અષ્ટદેવી મૂર્તિ નિર્માણ વ્યવસ્થા અને બ્રહ્માદિમૂર્તિઓના સ્વરૂપોનું સુંદર વિવેચન કર્યું છે.^{૧૫} અગસ્ત્યશિલ્પશાસ્ત્રમાં મૂર્તિવિજ્ઞાન માટે નીચે જણાવેલા વિષયોને લગતા અધ્યાયો આપવામાં આવ્યા છે.^{૧૬} તેમાં સોમસ્કંદલક્ષણ, ચંદ્રશેખર-લક્ષણ, વૃષભવાહનલક્ષણ, ત્રિપુરાંતકલક્ષણ, કલ્યાણસુંદરલક્ષણ, અર્ધનારીશ્વર-

૧૧ સુપ્રભેદાગમ અ. ૩૩-૩૪-૩૬ થી ૪૦.

૧૨ ભુઓ માનસાર અ. ૩૯ થી ૫૬ (સંપાદક પ્રસન્નકુમાર આચાર્ય, પ્રોફેસર, અલ્હાબાદ યુનિવર્સિટી).

૧૩ મયમત શિલ્પશાસ્ત્ર અ. ૩૩ થી ૩૩ (મદ્રાસ ઓરિયેન્ટલ લાયબ્રરીમાં હસ્તલેખિત પ્રત કેટલોગ નં. ૨૨. ગ્રંથ નં. ૧૩૦૮૮).

૧૪ અંશુમદ્ભેદ (કાર્યપીય અ. ૪૭ થી ૮૧.)

૧૫ વિશ્વકર્માશિલ્પ અ. ૮-૧૨ (રાજેન્દ્રપ્રાણનું સંસ્કૃતગ્રંથોનું અવલોકન વો. ૨, પા. ૧૪૨, ગ્રંથ નં. ૭૩૧).

૧૬ અગસ્ત્ય શિલ્પશાસ્ત્ર અ. ૪ થી ૧૪ (મદ્રાસ ઓરિયેન્ટલ લાયબ્રરી, કેટલોગ નં ૨૨, ગ્રંથ નં. ૧૩૦૪૬).

લક્ષણ, પાશુપતલક્ષણ, ભીક્ષાટનલક્ષણ, ઈંદ્રસાનુગ્રહલક્ષણ, દક્ષિણમૂર્તિલક્ષણ, કાલારીમૂર્તિલક્ષણ, વગેરેની વિશિષ્ટ ચર્ચા કરી છે. આ ગ્રંથમાં ફક્ત શિવમૂર્તિમતેજ લખવામાં આવ્યું છે તેટલુંજ નહીં પણ દક્ષિણમાં પ્રચાર પામેલી કેટલીક મૂર્તિઓનું તેમાં વર્ણન છે આથી તે ગ્રંથ દક્ષિણમાં લખાયો હોય અગર કોઈ દક્ષિણાન્યે લખ્યો હોય એમ લાગે છે. સંગ્રહનામક શિલ્પશાસ્ત્રનો એક ગ્રંથ છે જેમાં બુદ્ધ બુદ્ધ શિલ્પ-ગ્રંથોમાંથી કેટલાંક પ્રકરણો ઉદ્ધૃત કરાયાં છે. તેમાં ઉપરોક્ત માનસાર, મયમત, કાશ્યપીય અને વિશ્વકર્મા વગેરે ગ્રંથોમાંથી કેટલાક અધ્યાયો મૂક્યા છે. આ ઉપરાંત મૂર્તિશાસ્ત્રને લગતાં કેટલાંક પ્રકરણો પુલસ્ત્યમાંથી રજુ કર્યાં છે. જેમાં દક્ષિણમૂર્તિ નિર્માણ, નારદોક્ત કૃષ્ણલક્ષણ, નારાયણોક્ત રામલક્ષ્મણવિધાન, સારસ્વતપ્રોક્ત ચંદ્રેશ્વરવિધાન, ગરૂડલક્ષણ પટળ, વિશ્વેશ્વરપ્રોક્ત સ્કંદ, વીરભદ્ર, ત્રિપુરી વગેરેની પ્રતિમાવિધાન વગેરે વિષયોને લગતી અનન્ય હકીકતો નોંધવામાં આવી છે. આ સિવાય તેમાં કવિંજલ સંહિતામાંથી ગરૂડલક્ષણ, કૌમુદિગ્રંથોક્ત પ્રતિમાલક્ષણ, બ્રહ્મચાપળ પ્રોક્ત ચામુંડા ધ્યાનવિધિ, દશાવતારલક્ષણ, દીપ્તપ્રોક્ત લિંગલક્ષણ, વગેરેનો સમાવેશ કરવામાં આવ્યો છે.^{૧૭} અપરાજિત પ્રચ્છાનામક શિલ્પશાસ્ત્રનો આ અપ્રતિમ ગ્રંથ છે જેમાં મૂર્તિવિધાન માટે કેટલાક સ્વતંત્ર અધ્યાયો આપ્યા છે. પંથરાત્ર પ્રદષિકાગ્રંથમાં મૂર્તિને લગતો પ્રતિમાલક્ષણનામક એક અધ્યાય આવ્યો છે. મહા-પ્રતિષ્ઠતત્વગ્રંથ રઘુનંદન નામના વિદ્વાને રચ્યો છે. તેમાં શિલ્પકળા સાથે મૂર્તિકળાની પણ કેટલીક ચર્ચા કરી છે. મહાનિર્વાણતંત્રમાં પણ મૂર્તિવિજ્ઞાનની વિચારણા કરવામાં આવી છે તેમાં પ્રતિમાવિધાન, લિંગવિધાન, લગ્નપ્રતિમાસંધીકરણ, પ્રતિમાદ્રવ્ય-વિચાર, વગેરે વિષયો ચર્ચવામાં આવ્યા છે. માનસોલ્લાસગ્રંથમાં વજ્રલેપવિધિની હકીકત નોંધી છે.^{૧૮} ભોજદેવકૃત સમરાંગણસૂત્રધારમાં મૂર્તિવિજ્ઞાન માટે કેટલાક અધ્યાયો મૂક્યા છે^{૧૯} તેમાં પીઠિકાલક્ષણ, મૂર્તિલક્ષણ, વાહનલક્ષણ, આયુધલક્ષણ વગેરેનો વિચાર કરવામાં આવ્યો છે.

શિલ્પશાસ્ત્રના ગ્રંથો સિવાય મૂર્તિશાસ્ત્ર માટે કેટલાક સ્વતંત્ર ગ્રંથો પણ લખાયા છે. તેવા ગ્રંથોમાં પ્રતિમાદ્રવ્યાદિમાન, પ્રતિમામાનલક્ષણ, મૂર્તિધ્યાન, મૂર્તિલક્ષણ, લક્ષણસમુચ્ચય, દેવતાશિલ્પ, રૂપમંડન, રૂપાવતાર, શિલ્પશાસ્ત્ર, શિલ્પસાર, અને શિલ્પરત્ન વગેરે ગ્રંથો મુખ્ય છે. આ બધા ગ્રંથોમાંથી કેટલાક પુરાણો અને તંત્રોના અધારે રચાયા છે. મૂર્તિલક્ષણગ્રંથ ગરૂડસંહિતામાંથી લેવાયો છે જ્યારે લક્ષણ-સમુચ્ચય હેમાદ્રીના દાનખંડ, મુહૂર્ત દ્વિલીપ, અને પરશુરામપ્રકાશમાંથી ઉદ્ધૃત કરાયો છે. આ બધા ગ્રંથોના આધારે ભારતીય મૂર્તિવિધાનની યોજના કરવામાં

૧૭ શિલ્પસંગ્રહ અ. ૭ થી ૯-૧૩-૧૪-૧૬-૧૭-૧૮-૨૦ (ઉપરોક્ત કેટલોગ નં. ૧૩૦૫૮).

૧૮ માનસોલ્લાસ અ. ૮ (રોજેન્દ્રબાણનું સંસ્કૃતગ્રંથોનું અવલોકન વૉ.૩, પા. ૧૮૨.)

૧૯ સમરાંગણસૂત્રધાર અ. ૭૦ થી ૭૮ (ગાયકવાડ ઓરિયેન્ટલ રીચર્સદ્વારા પ્રકાશિત ભા. ૨).

આવી છે. તેમાંના કેટલાક પ્રાંતીય અસ્મિતા અનુભવે છે. કારણ કેટલાક પ્રાંતોમાં અમુક ગ્રંથોનાજ આધારે મૂર્તિઓની રચના કરવામાં આવી હોવાનું જણાય છે. જેમ દક્ષિણનું મૂર્તિવિધાન આગમોને અનુલક્ષી યોજાયું છે જ્યારે ગુજરાતનું મૂર્તિવિધાન રૂપમંડનને અનુસરે છે. આમ પ્રાંતીય વિવિધતાનું મુખ્ય કારણ જે તે પ્રાંતમાં પ્રચાર પામેલ બુદ્ધ બુદ્ધ ગ્રંથોને લઈને જ હોવાનું જણાય છે. ગુજરાતમાં વધુ પ્રસિદ્ધ થયેલ રૂપમંડનગ્રંથ કુંભારાણના પ્રીતિપાત્ર સ્થપતિમંડન સૂત્રધારે બનાવ્યો હતો. જે પંદરમા સૈકામાં થઈ ગયો છે. ગુજરાતમાં કેટલીક મૂર્તિઓ ઈ. સ.ના છઠ્ઠા કે આઠમા સૈકા જેટલી પ્રાચીન હોવાની લાગે છે. ત્યારે રૂપમંડનગ્રંથ તો આજથી ફક્ત ત્રણસો ચારસો વર્ષ પહેલાંજ રચાયો છે તેના સમર્થનમાં જણાવાનું કે રૂપમંડનના નિર્માણ થયા આગાઉ ગુજરાતનું શિલ્પસ્થાપત્ય અને મૂર્તિવિજ્ઞાન અપરાજિતપ્રચ્છ સમરાંગણ સૂત્રધાર, સીશણ અને અંશુમદભેદ વગેરે પ્રાચીન ગ્રંથોના આધારે કરવામાં આવતું હતું એમ વૃદ્ધસ્થપતિઓ અને વિદ્વાનોનું માનવું છે. આજ પણ ગુજરાતનાં કેટલાક સ્થપતિઓના ઘરોમાંથી આ બધા ગ્રંથો મળી આવે છે. જે ઉપરોક્ત માન્યતાને પુષ્ટિ આપે છે. આથી ગુજરાતમાં તેનો પ્રચાર હશે એમ જરૂર લાગે છે.

આ સિવાય મૂર્તિવિજ્ઞાનને લગતા બીજા પ્રાચીન ગ્રંથો પણ હશે જેના સંબંધી કંઈ પણ માહિતી મળી નથી. કોઈ વિદ્વાન તે સંબંધી વધુ માહિતી આપશે તો આ રજુ કરેલ સૂચિમાં ઉમેરો થશે, અને તેના જ્ઞાસુને વધુ મદદકર્તા થઈ પડશે.

લેખક

કનૈયાલાલ ભાઈશંકર દવે

REVIEW

LIFE AND LABOUR IN A GUJARAT TALUKA

By

J. B. SHUKLA, M.A.

Edited by Prof. C. N. Vakil, (Longmans, Green & Co., Ltd.).

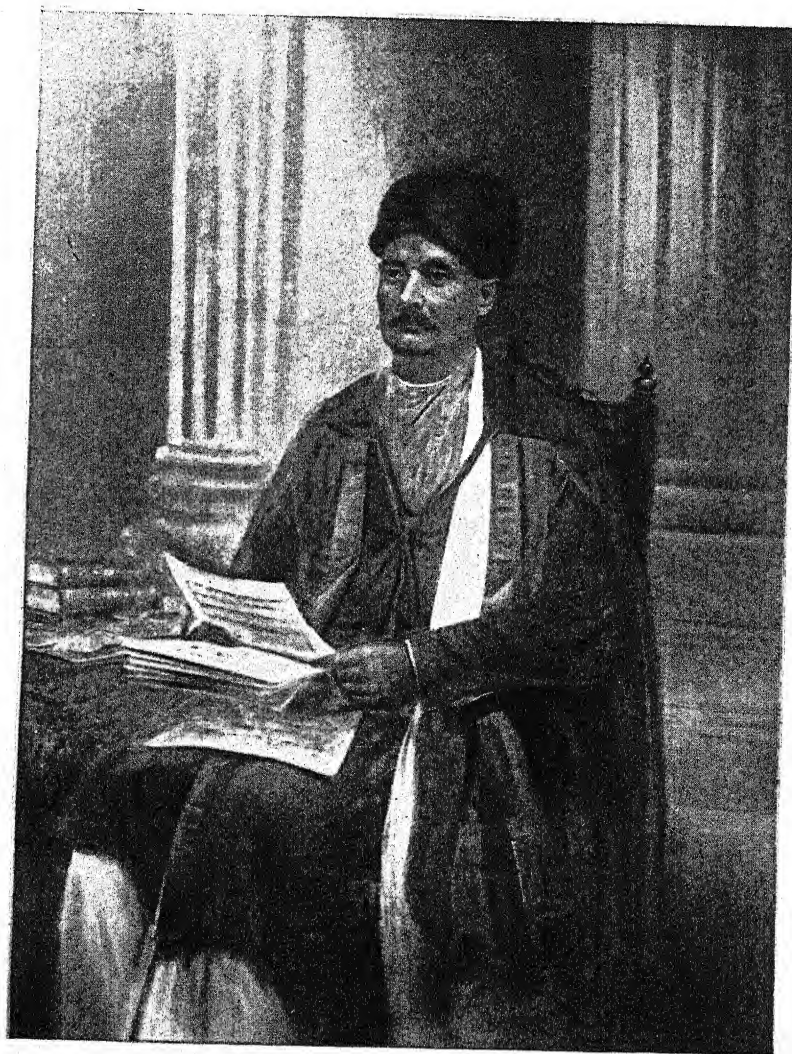
Mr. Shukla's *Life and Labour in A Gujarat Taluka* makes a very substantial contribution to the Indian Economic Series edited by Prof. C. N. Vakil. In this book the author has successfully endeavoured to present the results of his intensive studies in Rural Economy of Olpad Taluka in Surat District. The Varied economic problems connected with the residents of area are well tackled and a massive information is collected by the author. This information, it seems to me, is likely to be of use to the students of Rural Economy and to all political and Social workers who are in charge of the Taluka. These days the problem of Rural Reconstruction is closely engaging the attention of the officials and non-officials in this Presidency and under the circumstances studied works of this nature are welcome.

Hitherto a Village was adopted as a unit of study and Economic enquiry, and the works embodying this technique have been published in this series as also elsewhere. In this work the author breaks a new ground in fixing a pretty large Taluka as the unit of his extensive and intensive study. All the same, it is certainly difficult to make a real comprehensive survey of a large area like a Taluka. In fact, conditions, differ in this country at short distances. A Taluka is more of an administrative unit than a Regionally Compact area, and it is certainly more scientific to take as the unit of enquiry a real natural region. The author is aware of the limitations of such a wide unit for enquiry and it appears that then limitations are materially overcome in dividing the Taluka in typical groups with the self-same economic conditions and further, in each group a representative village or villages are closely studied, and the entire study is then synthesised.

The author has covered a wide ground in developing his thesis from the physiography of the area to the analysis of the

cumulative effects of geographical determinants and on the basis of natural wealth and potentialities so well demarcated in the Taluka, the author has tried to peer through the entire economic structure of the area. The grinding poverty of the masses, exhaustion of soil, increasing population, absence of any subsidiary occupations, the ever-increasing rural debts and a host of other problems of rural Economy are carefully tackled, and a realistic picture is presented. The Rural Economy spells a total disaster unless rural problems are handled in a practical way and the rural population is made conscious of its own ill-calculated deeds. The whole work itself is resourceful and informative and the author suggests a number of reforms for bettering the life of the rural population in the Taluka. He particularly lays stress on the need for early abolition of the useless practice of maintaining parallel two different types of milch animals viz. Cows and buffaloes and makes sensible plea for utilising waste water of the village in developing horticulture and growing vegetables. A very good case has been made for developing subsidiary occupations. The evils of intoxicants and beverages like tea are lucidly stressed and it is significantly brought out that the Rural life in spite of its poverty has been getting progressively expensive without any added incidental efficiency. The last chapter of the book on Rural Reconstruction makes a fitting epilogue to the work of this nature.

P. M. T.



PANDIT BHAGWANLAL INDRAJI

LL. D., Ph. D. Honoris Causâ (Leyden).

Born 7th November 1839.

Died 16th March 1888.

FOREWORD

The name of Pandit Bhagwanlal Indraji may not be known to many persons in the present generation. That, however, does not detract from his merit as a great scholar because the work that earned for him even European reputation could only be appreciated by that small circle of scholars interested in historical and antiquarian research. The long interval of half a century between his death in 1888 and the present day is one of the reasons for his name having receded into back-ground, but that is also the reason for celebrating the centenary of his birth which took place on 7th November, 1839 and thereby acquainting the present generation of the pioneer work which he did in that neglected but none the less fascinating subject of revealing our ancient culture by antiquarian research.

Much has been done by way of discoveries in this branch of knowledge during the last fifty years and India now possesses a band of scholars who have considerably added to our knowledge of ancient culture ; but much credit must be given to the early pioneers who brought to light for the first time what remained in dark for centuries of neglect and ignorance. One such pioneer was, undoubtedly, Pandit Bhagwanlal. He was born in a community noted for its learning in Sanskrit and scriptural lore. It was the famous rock containing the edicts of the Emperor Asoka, at Girnar near his native place, Junagadh, which became the foundation stone of his career. His interest in the inscriptions led him to procure and study the Pali alphabet and thenceforward he added to his studies in researches in Palæography. Dr. Bhau Daji of Bombay who was much interested in antiquarian research invited him to Bombay and it can be said with truth that it was he who shaped the future career of Pandit Bhagwanlal ; but for his patronage and active support, Pandit Bhagwanlal would not have been able to do the solid work in the field of archæology which he did for nearly twenty-six years of his life in Bombay. Ignorance of the English language was a great handicap for him ; but in spite of it, the researches which he conducted by visiting various places of interest in Upper India and even beyond, in Nepal, Tibet and North Western Frontier, attracted the notice of European scholars. He was the recipient of honours from German Universities including doctorate. His sound

opinions and theories have stood the test of time and modern scholars have carried on their work over the foundations laid by him.

The Gujarat Research Society has taken the opportunity of the centenary of his birth for presenting to the public, in commemoration of his life-work, this volume containing articles on his life and career as well as subjects of ancient research. We are thankful to the learned contributors of the papers published in this volume and we trust that it will not only serve as a tribute to the memory of Pandit Bhagwanlal Indraji, but will also stimulate the interest of the public in the work of further researches for revealing the glorious past of India.

Bombay,
31st October, 1939.

H. V. DIVATIA

BUDDHIST RELICS FROM SOPARA RE-EXAMINED

By

Rao Bahadur K. N. DIKSHIT, M.A., F.R.A.S.B.

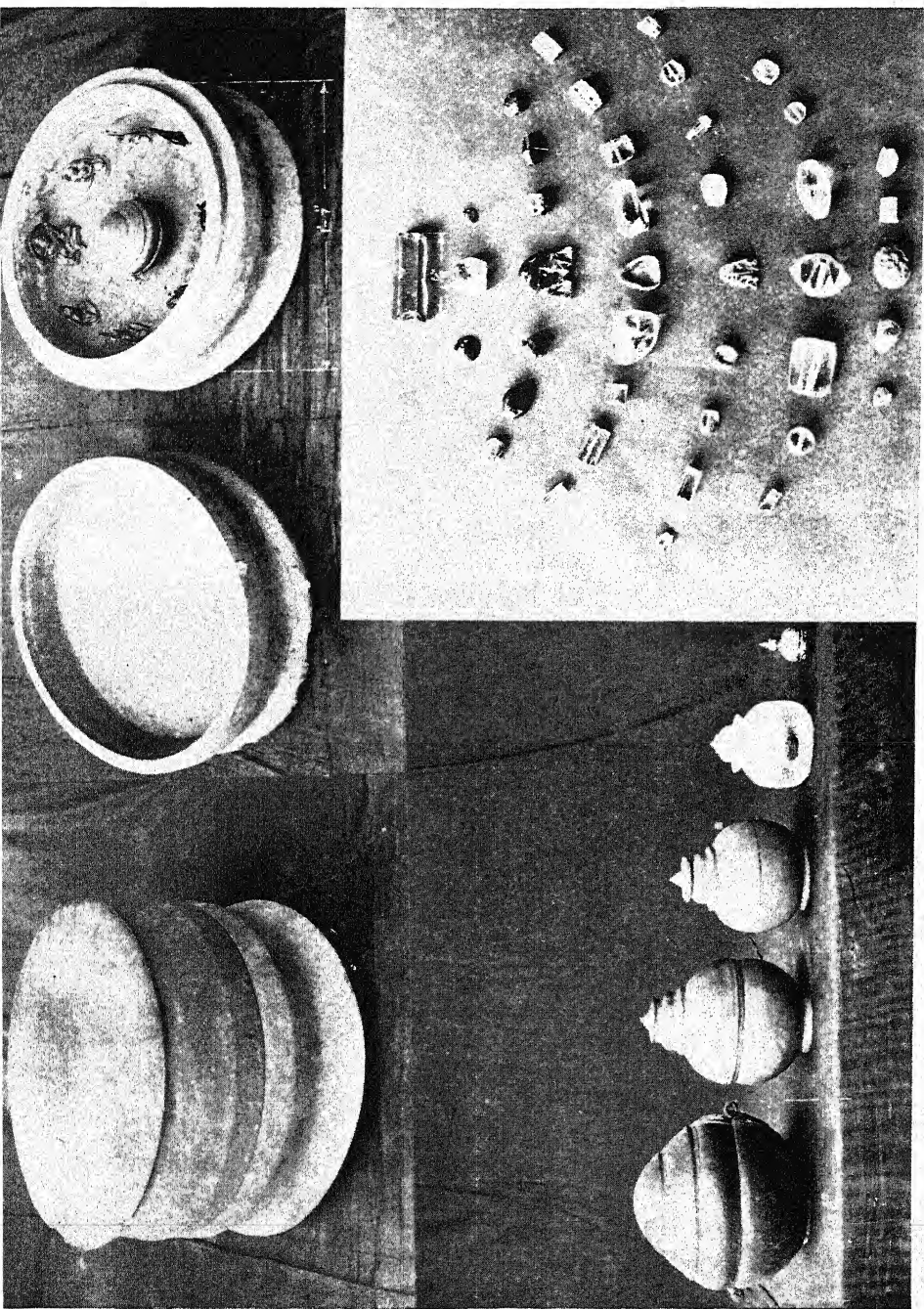
DIRECTOR GENERAL OF ARCHÆOLOGY IN INDIA.

The work of the late Pandit Bhagwanlal Indraji is mostly in the field of epigraph in which he was the most brilliant Indian scholar not only of his own time but perhaps for all times. In the reading of several difficult inscriptions, such as that of the Satāvahana inscription of Nanaghat and the Hathigumpha inscription of Khāravela, Pandit Bhagwanlal's readings after a short inspection are such that it has been found difficult to make any real improvement in most of them and even by scholars who could afford more leisurely visits. One work, however, in the field of archæology proper will always remain to his credit and that is the excavation at Sopara, which he carried out during the Easter Holidays in 1882. Pandit Bhagwanlal was rewarded with an unusually rich hoard of relics in course of his four days' work on this stupa. The results have been fully described in his article on the antiquarian remains at Sopara and Padana published in the Journal of the Bombay Branch of the Royal Asiatic Society, Vol. XV, pp. 273 to 328. Recently the Archæological Survey of India have conducted more work in uncovering the periphery of the stupa which was only opened in the centre by Pandit Bhagwanlal. I, therefore, thought it fit to draw the attention of scholars to the finds particularly the relics discovered by the late Pandit Bhagwanlal Indraji which are now preserved in the Bombay Branch of the Royal Asiatic Society. The illustrations in Pandit Bhagwanlal's paper are almost entirely line drawings and I have given here photographs which were taken by the Head Photographer of the Western Circle after cleaning the antiquities. The relics were discovered at the stupa which is known locally as the Burud Raja's Fort at a depth of about 12' from the top of the mound in a regularly built brick chamber. In the chamber which looked like a hollow brick pillar 3' square Pandit Bhagwanlal found a large circular stone coffer kept in position by eight large bricks. About 2' of soft moist clay was found above the chamber and about

4" under the coffer. Below this there were a number of layers of bricks set in mud to a depth of about 13'. Pandit Bhagwanlal's description of the brick pillar and its masonry makes it probable that the bricks were of large size similar to those discovered in the course of excavation. These measure over 14" in length and may be taken to date from the early centuries of the Christian era. The evidence of a small coin found in the relic box, which was issued by Śrī Yajña Śātakarṇi is corroborated by the early type of the bricks, and it can be safely assumed that the relic chamber was built some time about the end of the second or beginning of the third century A.D.

The large stone casket is 1' 9" in diameter and 2' high. It is of peculiar shape, cylindrical with a bulge in the middle and a slightly splayed out bottom. The lid fits the body exactly in the middle, the height of both being almost the same. Plates I and II show the stone casket as closed and as opened respectively. Plate III shows how the eight bronze images of Buddha were arranged round the copper casket which enclosed four others, viz., silver, jade, crystal and gold respectively shown in Plate IV. Plate V shows the crystal and other stone beads found within the relic caskets and Plate VI the gold flowers, image, the coin and the pottery fragments which constituted the actual relic and must therefore be looked upon as fragments of Buddha's bowl. The minuteness of the fragments do not permit of a close examination of the type and pattern of the pottery. While other caskets conform to the traditional shape, the copper casket is quite different and the arrangement of images around it is quite unique. Sufficient attention has not so far been drawn to these unique images and none of the scholars dealing with the history of art in particular studying the evolution of Buddhist bronzes have noticed them. The question of the find of these images worried Pandit Bhagwanlal who says as follows :—

" I have still one difficulty to solve before fixing the middle of the second century after Christ as the age of the stupa. It is caused by the images which were found encircling the copper casket. As the images of the seven Buddhas are in a style of dress which did not vary, nothing can be said against their belonging to the time of Yajnasri. With the image of Maitreya the case is different. We have no good specimens of the richer dress and ornaments in use during the second century after Christ. But comparing Maitreya's dress and ornaments with



The relic Casket and its contents from a Buddhist stupa at Sopara discovered by Pandit Bhagwanlal in 1882 A. D.



the specimens of Yajnasri's time, of which there are many examples in the Nasik and Kanheri caves, the pyramidal crown, the sacred thread, the waist band and Maitreya's other ornaments differ greatly from the royal crown and corresponding details of dress and ornament in Yajnasri's time ; and closely resemble the dress and ornamentation of images of about the seventh or eighth century. I can explain this only by supposing that about the seventh or eighth century the tope was opened for repairs, when new images and probably new copper and silver caskets were put in instead of the old ones, which had been spoiled by damp and verdigris".

Pandit Bhagwanlal Indraji's idea that the figures of the other seven Buddhas except Maitreya could be assigned to the time of Yajñaśrī on the grounds of style of dress is not borne out by subsequent finds. Nowhere else in Western India or in the dominions of the Satavahana kings have metal images in such style been discovered. On the other hand, the affinities of the Sopara images lie with the bronzes of the Eastern School, particularly those from Nalanda. The process by which these bronzes were manufactured is what is known as *cire perdue*, and it is obvious that the work is of the same Eastern School. The style of the upper garment which hangs over the left shoulder,¹ the semi-circular *prabhāvalī* or aureole in the background, the cross stem seen from behind in the Maitreya image are all features which betray a close affinity with the work of the Eastern Indian craftsmen. There are, of course, slight differences, such as the absence of any decoration of flames on the border of the aureole and the long stems of trees in the case of the seven figures, but these may indicate a slightly earlier date. It is reasonable to assume that all the eight images were produced in Eastern India (probably Nalanda) in about the 7th or 8th century A.D. and brought for enshrinement to Sopara. This conclusion in respect of the Maitreya image, which has been hinted by Pandit Bhagwanlal, cannot be doubted. It is probable that when the Mahāyāna form of Buddhism became rampant in Western India, and the sacred places of the Buddhists, such as the rock cut *chaityas* and *viharas* at Kanheri, were covered with figure sculptures, the reliquary at the Sopara stupa may have been reopened and

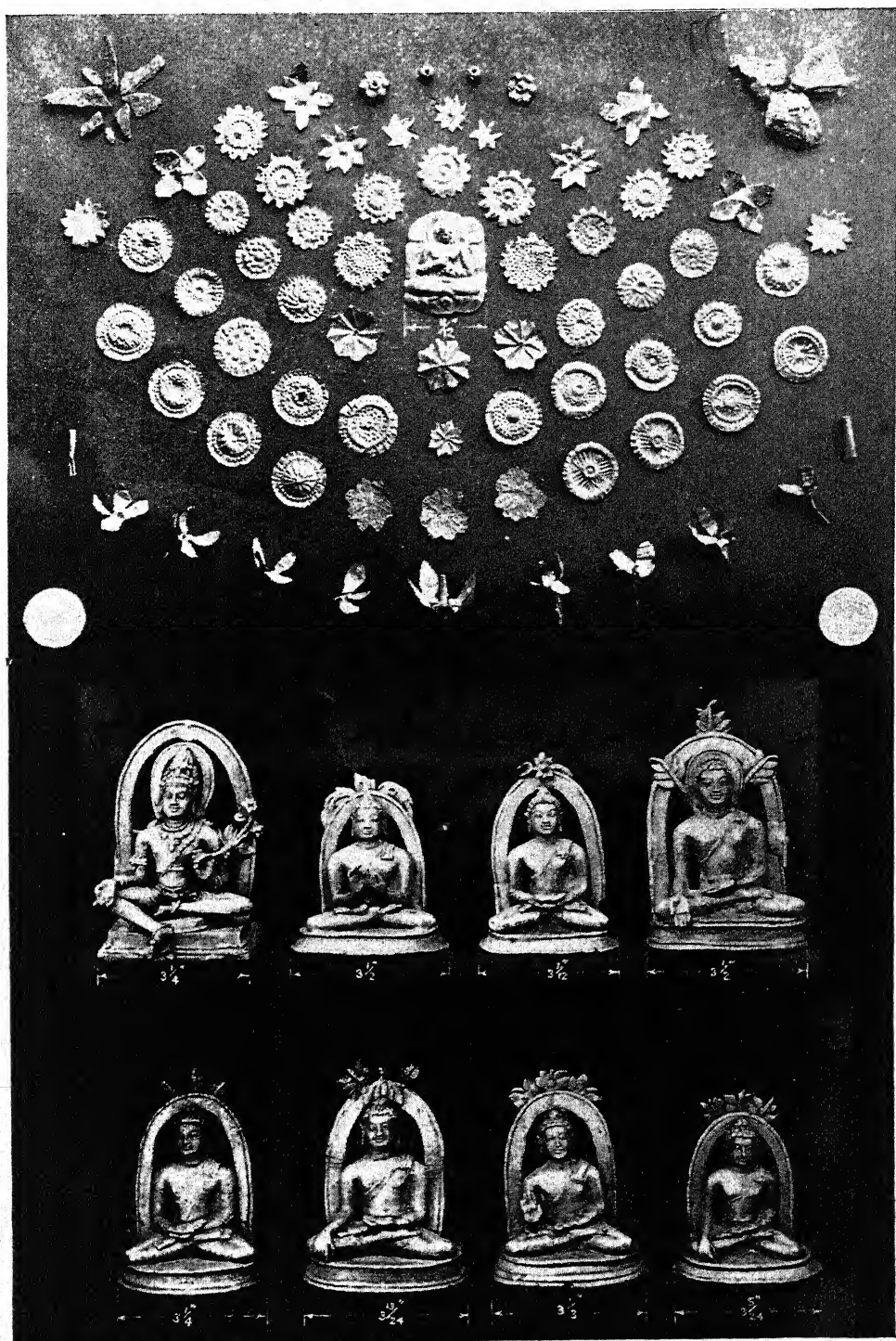
1. This short flap on the left shoulder has been found by Dr. Bernet Kempers to be a peculiarity of the Pala bronzes. (The Bronzes of Nalanda and Hindu Javanese Art, p. 25.)

reconsecrated with the addition of the images and perhaps also the copper casket. The image of Buddha in thin gold plate on a lotus seat in the *vyākhyānamudrā*, which was found inside the copper casket, may also be attributed on grounds of style, to the 7th-8th century A.D.

The identification of the eight images with Maitreya, the coming Buddha, and the seven mortal Buddhas respectively is not without doubt and deserves to be more closely examined. The Hinayāna doctrine, to which Ceylonese books belong, recognises several Mānushi Buddhas and a number of them are depicted in the Bharhut railings. It must, however, be seen to what extent the Mānushi Buddhas were recognised and depicted in the sculpture in the Mahayana form of Buddhism. Among the seven Mānushi Buddhas three (Vipaśyi, Sīkhi and Viśvabhu) are supposed to belong to the preceding *kalpa* (epoch) and are seldom depicted. The four mortal Buddhas of the present school, viz., Krakuchhanda, Kanakamuni, Kayśyapa and Sākya-muni are more popular and have been depicted in sculpture both in the earlier and later schools of Buddhism. All of these are supposed to be depicted in *bhūmisparśa* or earth touching attitude, and it is difficult to distinguish them from each other.¹ In the present lot all the five *mudras* in which Buddha images are found are represented, the *bhūmisparśa* and *dhyāna* accounting for two specimens each, the *abhaya*, *varada* and *vyākhyāna* one each. Pandit Bhagwanlal has attempted to identify the different kinds of *bodhi* trees which are associated with each of the Mānushi Buddhas by studying the leaves, but the attempt has not been quite successful in each case. The fact remains that there are no other metal images found in India which depict the group of seven *mānushi* Buddhas with Maitreya. The only stone images are those found in the cave temple at Ellora,² all of which displayed the *bhūmisparśa mudrā* or the earth touching attitude. Pandit Bhagwanlal has referred to the row of eight Buddhas in the painting above the doorway of cave No. 17 at Ajanta. These are no doubt painted with labels identifying the subject, but the present group has its differences with these as well. None of the Ajanta figures are for example depicted in the *bhūmisparśamudrā*, and none of them show the hem of the upper garment on the left shoulder. A likely clue to the possible identification of the figures is given by the re-

1. B. Bhattacharya's *Buddhist Iconography*, p. 10.

2. Fergusson & Burgess *Cave Temples of India*, p. 383.



Gold flowers, a coin of Gautamiputra & other images from the Sopara relic casket discovered by Pt. Bhagwanlal.

presentation of the Mandala or Garbhadhātu.¹ We may conceive of the entire relic casket in copper together with the golden image inside which may actually represent Vairochana as the heart of the lotus and the eight surrounding images as the petals. Such a conception is found in the image of Vajratarā in which the eight petals are presided over by the attendant deities which close round the central figure when the lotus is closed. In the Tibetan example the four Dhyani Buddhas or spiritual fathers appear with the four Dhyani Bodhisattvas, one of whom is Maitreya. In the present instance, however, we have no other figure looking like a Bodhisattva except Maitreya. Until some other instances come to light the Sopara find must be considered as unique and striking an entirely original note.

The coin of Gautamīputra Yajñaśrī Śātakarṇi found inside the silver casket is also quite unique. It is the only type of western Kshatrapa fabric issued by an Andhra king, and the present happens to be the only coin of this type discovered in the *aparānta* or Konkan country, the other two specimens, which were found in Kathiawar and Baroda respectively and now in the British Museum not being so well preserved as this. The reverse legend shows certain linguistic peculiarities such as the substitution of 'h' for 's' which indicates connection with the lower Kistna valley where the use of the particular type of *prākṛit* has been found. The issue of this type clearly indicates the dispossession by Yajñaśrī of some part of the Kshatrapa dominions. The paucity of the issues perhaps indicates the short duration of the conquest. The affinities of this type are with the earliest western Kshatrapa coins, particularly the issue of Rudradāman. I am inclined to believe that Yajñaśrī Śātakarṇi was a younger contemporary of Rudradāman and his occupation of the Kshatrapa territories may account for the gap between the earlier and later reigns of Rudrasimha I as Mahakshatrapa. The date of the present coin then would be Saka 110-112 (188-190 A.D.).

1. Alice Getty's *Gods of Northern Buddhism*, pp. 31-32 and Pl. XVI.

SOME EVENTS OF THE LIFE OF DR. BHAGWANLAL INDRAJI FROM CONTEMPORARY RECORDS.

By

G. V. ACHARYA, B.A., M.R.A.S.

Girinagar—Jirnadurga—Junagad has the proud privilege of having on the road to Girnar, on the bank of the lake Sudarshana, now extinct, three monumental early records on one huge boulder dating from the 3rd century B.C. to the end of the 5th century A.D., i.e., from the time of the Mauryan emperor Aśoka right up to the reign of Skandagupta, one of the early Gupta princes that practically ruled over the whole of the Indian Empire. This sacred and historic city was the birth place of Dr. Bhagwanlal Indraji, who was born on 7th November 1839, i.e. 2nd of the bright half of Kartika of v.s. 1896. He belonged to the Prashnora class of the Nagar Community which has even now maintained the tradition of inborn love of Sanskrit, Dharmashastras, Medicines and Astrology. The education of the Pandit started with the study of Sanskrit on old lines in the local Pāthashala.

He finished his course at the said institution and further continued at his own place the study of Sanskrit and Medicine.

The Pandit had a natural love for copying and studying inscriptions and he was to be seen, practically day and night, face to face, with the huge block of stone containing the famous edicts of Aśoka. His earnest desire to fathom the contents of those edicts had a speedy divine response and he and Pandit Acharya Vallabhaji Haridat were supplied with the tentative alphabets by Col. Lang in 1854 from which quite a trustworthy and correct copy was prepared in no time.

Unfortunately both these Pandits being born in a remote corner of Kathiawad were deprived of the opportunity of studying English and they had to struggle hard all throughout their careers against these handicaps. It is therefore, all the more

creditable for them to be able to play their humble part in the field of Archæology. Results of their researches had to be communicated to some persons interested in this branch. Fortunately for Dr. Bhagwanlal he was patronised by Dr. Bhau Daji of Bombay who detected the promising career of this young pandit and gave him all facilities for visiting interesting archæological sites and studying the inscriptions, architecture and other striking features about those places. Mr. Acharya was not equally lucky and had to confine his energy in organising the Watson Museum of Antiquities at Rajkot and publishing his researches in the form of lectures on Asoka, Kshatrapas and Guptas. Doctor was not slow to benefit by the helping hand of Dr. Bhau Daji. He went to Bombay in 1862 and worked till his death as his associate. His learned reports on visits to various sites have almost all been published in the Journals of the Bombay Branch, Royal Asiatic Society. Pandit's writings attracted the attention of continental scholars who started corresponding through some common friends. Doctor was tackling some of the dark periods of Indian History with the help of original sources which were not available to outside scholars. On the other hand he had the handicap of not studying the opinions of contemporary workers in the same field. The amount of work turned out by him under the circumstances stated above was completely original. It is, therefore, highly creditable that his theories and conclusions stand the test of the best of critical workers, who have utilised all the most modern materials on the subject. This very fact has raised the Pandit in the estimation of continental scholars and it was because of these original contributions that the rare distinction of doctorate was conferred upon him by the authorities of the Leyden University.

Due to paucity of inscriptions the dynastic list of Kshatrapa princes was considered almost as an impossibility. Doctor Bhagwanlal prepared a tentative order of succession of these princes with the help of few coins that he came across. This led him to the study of numerical symbols used in the dates given on these coins. He published the results of the study of these symbols and many chronological puzzles of the Western archæologists were solved by the publication of this article. Rapson has given a list of these symbols in his catalogue of Andhra, etc. coins in the British Museum. During the course of examination of several hoards of Kshatrapa coins I have come across several modifications of these symbols actually in-

scribed on coins and I give them here,* for the sake of those who are concerned with them.

The infallible nature of work turned out by the Doctor was due to his special method of working on the materials before him. Like most of the western scholars he did not depend on impressions or eye copies as well as on transliterations and translations prepared by Pandits and Munshis. He was not an armed-chair editor palming off other people's labours as his own researches simply because he happens to be in high official position or because he has a long purse to pay those Pandits and Munshis. He believed in personal visits to these sites deciphering inscriptions etc., on the spots and thus getting first hand and authentic information and readings. This urge for personal contact prompted him to visit in 1865 Jesalmere for examining the splendid collection of original manuscripts. Continuous work in these dark and moist rooms having marble flooring shattered his health for ever. In spite of indifferent health he went to Mathura, Allahabad, and Benares in 1868 and undertook in 1871 an extensive tour through Rajputana and Central Indian places of Archæological interest. In 1873 he went to Nepal and though the inscriptions copied by him have been published his notes and descriptions of ancient monuments are in the possession of his trustees awaiting publication. When he visited Ajanta he had written detailed descriptions of the paintings and one such manuscript has been recently secured and is in the possession of Mr. Durgashankar Shastri of Zandu Pharmacy.

History of Gujarat.

Prof. Commissariat has, after collecting and collaborating materials acquired during all these years, compiled the history of Gujarat of the Muslim period. A similar volume on the pre-Muslim period is long overdue especially because the history portion in the Bombay Gazetteer has become more or less obsolete as since its publication a number of inscriptions, coins and other materials have been unearthed and acquired by the Archæological Department of the Government of India as well as various native States. Forbes Sabha has conveniently arranged for the publication of the inscriptions of this period in three handy volumes and it is but proper that the Sabha as well as the Gujarat Research Society lay out a scheme for the com-

* See Plate.

4 = 7 7 7 7 7

5 = 5 5 5 5 5

6 = 4 4 4 4 4

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90 0 0 0

100 7 7 7 7

200 7 7 7 7

pilation and publication of the revised history of Gujarat of the Pre-Muslim period. With a view to early fulfilment of the project it is suggested that the work be distributed to about half a dozen scholars assigning specific periods to each one of them. An editorial Board of two or three of them can weave the piecemeal works into a harmonious whole.

Publication of his writings.

The Bombay Branch, Royal Asiatic Society, discussed some years back the advisability of collecting and republishing all his contributions, notes, jottings, etc. in a book form. The idea was unanimously approved but dropped due to financial difficulties. The idea was again suggested to the Committee in charge of these celebrations, but preference was given to his commemorative volume. The Doctor's writings have a permanent value and an effort should be made to preserve them together in some form or the other. It is possible to reprint them regularly, say 4 or 5 pages in each issue of the Journal of the Gujarat Research Society, and then collect them in a book form. This will obviate the difficulty about collecting funds specifically for the volume. If nicely got up it would command a good sale and the Society stands to profit in the end.

Bombay Life.

Having lived and worked in Bombay for a long period he was feeling like a fish out of water if the idea of leaving Bombay was suggested to him. Once when my father proposed to him to go with him to his native place, Junagad, he ridiculed the idea saying "what can I do there ; where can I stay there." My father quietly reminded him about the existence of his own house at Junagad whereupon he remarked, "It is not fit for me to stay in." My father being very familiar retorted that "in that case we will hire for you a part of the royal palace." This shows that he had completely outgrown his own modest surroundings of the early part of his life. Thanks to the generosity of Dr. Bhau Daji, he was living in complete comfort which is borne out by the reference about his having sent to Panditji a quantity of Tuver-pulse by registered post to Nepal when Panditji was working on inscriptions and fell sick.

His will.

Indian scholars have a permanent grievance against Panditji for having given away, out of India, his priceless collection of

coins, antiquities and sculptures. I realised the injustice of it when I had to pay to the British Museum about £3 or so for a plaster cast of the Mathura Lion Pillar Capital which has been presented to the British Museum. It cannot be argued that the Pandit was obliged to do this for the safe custody of his collection. The Indian Museum, Calcutta, was already in existence since 1914 and the present would have been greatly appreciated by the Trustees. It is really to be deplored that partly prompted by the instinct of profiteering and partly due to the greed for foreign appreciation some of our best specimens are even now regularly sent out of India by curio dealers to enrich one or the other continental Museums.

Shrewd excavator.

The Doctor tried his skill at excavation work at Sopara and obtained unique success at several sites tackled by him. A piece of the 8th Rock edict of Aśoka secured by him is in the Prince of Wales Museum and the relic chamber with its contents and minor antiquities such as gold flowers, coins, images, etc., is exhibited in the Bombay Branch, Royal Asiatic Society's rooms in the Town Hall.

He located the stupa and reached the reliquary as if by intuition with the least possible digging. He has described in great details the result of his excavations in the Journal of the Bombay Branch, Royal Asiatic Society.

I offer my respects in this form to the learned Pandit on the occasion of this Celebration.

DEPENDENT ORIGINATION

By

DR. B. C. LAW

The *Dhammacakka-pavattana* Sutta is traditionally known as the *Paṭhama Dhamma-desanā*—the First Preaching of the Doctrine, the First Sermon, the First Discourse.¹ The main text of this Discourse shows a complete agreement in all its various recensions.² Its main subject-matter is the Middle Path (*Majjhima Paṭipadā*) which is just another name for the Noble Eightfold Path consisting of Right faith, Right aspiration, Right speech, Right action, Right livelihood, Right effort, Right mindfulness, and Right concentration. It is called Middle Path because it seeks to avoid these two extremes (*dve-antā*) : (1) the habitual pursuit of the pleasures of sense which is a low and vulgar way of seeking satisfaction, unworthy, unprofitable, and fit only for the worldly-minded ; and (2) the (accredited) practice of a self-mortification which is painful, unworthy, and unprofitable. It formulates and expounds the Four Noble Truths that are usually enumerated thus : (1) the noble truth concerning suffering, (2) that concerning the origin of suffering, (3) that concerning the cessation of suffering, and (4) that concerning the way which leads to the cessation of suffering.³

It is well observed by the late lamented Professor Rhys Davids : "It would be difficult to estimate too highly the historical value of this Sutta. There can be no reasonable doubt that the very ancient tradition accepted by all Buddhists as to the substance of the discourse is correct, and that we really have in it a summary of the words in which the great Indian thinker and reformer for the first time successfully promulgated his new ideas. And it presents to us in a few short and pithy sentences the very essence of that remarkable system which has had so profound an influence on the religious history of so large a portion of the human race."

1. *Milinda-pañha*, p. 350.

2. Léon Feer, *Textes tirés du Kandjour*.

3. *Samyutta*, Pt. V, pp. 420 ff. ; *Vinaya, Mahā.*, pp. 10 ff.

4. *Buddhist Suttas*, p. 140.

It is claimed in the *Peṭakopadesa* that all the Buddha had taught or promulgated for the attainment of Buddhahood till his demise were all epitomised in the *Dhammacakkapavattana Sutta*, and nothing fell outside its scope.¹

According to Vasumitra, such as precisely the view of the Sarvāstivāda school of Buddhism.² The *Peṭakopadesa* really wants to understand that the Four Noble Truths constitute the main subject-matter of the so-called First Discourse instead of the Middle Path considered *per se*. The topic of the Four Aryan Truths seems to have been well introduced. After speaking of the two Extreme Paths of worldly life and ascetic life, the discourse has got to bring in the topic of middle Path. After this, question naturally arises—what is the Middle Path? The Sutta has consistently sought to answer this question. As for the Four Aryan Truths, there was no justification whatsoever for introducing them as a separate topic and save except to show how the Middle Path formed just an item in the agenda of Four Truths. The fact, however, remains, that the discourse, as we now have it in its various versions, is mainly concerned with the formulation of the Noble Middle Path whatever it is, which a person seeking to attain Nirvāṇa might profitably follow.

The presentation of the Path Formula without any reference to the formula of Four Noble Truths was quite possible, and it would have been more consistent and welcome in the First Discourse if the Middle Path were its main subject-matter. In that case the Path would have been rather tenfold than eightfold in order to contain an independent and complete process of thought. Fortunately, there are 'texts' in the Pāli Canon itself enlightening us on the subject of the Tenfold Path enumerated thus : *Sammā-diṭṭhi*, *Sammāsaṃkappo*, *Sammā-vācā*, *Sammā-kammanto*, *Sammā-ājīvo*, *Sammā-āyāmo*, *Sammā-sati*, *Sammā-samādhi*, *Sammā-ñāṇaṃ*, *Sammā-vimutti* : Right faith,

1. *Peṭakopadesa*, Ariyasaccappakāsana-paṭhamabhūmi. "Yaṇ ca rattim Bhagavā abhisambuddho yaṇ ca rattim anupādāya parinibbuto etthantare yaṇ kiñci Bhagavatā bhāsitaṃ suttaṃ geyyam veyākaraṇaṃ gāthā udānaṃ itivuttakaṃ jātaṃ abbhutaḍḍhammaṃ vedallaṃ sabbaṃ taṃ dharma-cakkaṃ pavattitaṃ 'Nakiñci buddhānaṃ dhammadesanāya dhamma-cakkato bahiddhā; tassa sabbaṃ ariyadhammesu pariyesiṭṭabbaṃ.

2. Journal of the Department of Letters, Calcutta University, Vol. I, p. 6.

3. *Digha Nikāya*, Vol. III, p. 271 ; B. C. Law, *Concepts of Buddhism*, p. 36.

Right resolution, Right speech, Right action, Right livelihood, Right effort, Right mindfulness, Right concentration, Right intuition, and Right deliverance.

In going to reduce the Tenfold Path to the Eightfold, one has to read a two-fold meaning of Faith and Intuition in the first term and to shift the last term to figure as the third item, *dukkhanirodha*, in the agenda of Four Truths,—which is obviously a complicated and misleading procedure of later systematization.

The traditional First Discourse, as we now have it, would seem to be a later got-up thing with some romantic appendages. We get it in which it might be treated, and as a matter of fact was used in the Buddhist community as a *Paritta* or *Samāgama*, i.e., as a sacred text fit to be chanted in the presence of a concourse of the gods invoked for the well-being of the audience. The very title of the Discourse, *Dharmacakṛapavartana*, variously rendered in English—'Turning of the Wheel of the Law,' 'Foundation of the Kingdom of Righteousness,' resulted from a poetical imagery which the early Buddhist so often borrowed from the previous poets of Vedic literature.¹

M. Senart drew his readers' attention to a fact which might well indicate how the earlier word *Dhammatakka* or *Dharmatarka* was transferred into *Dharmacakka* or *Dharmacakra* to make the idea fit in with the poetical imagery representing Buddhism as a well-equipped and spacious vehicle to carry man and woman, ascetics and householders, to Nirvāṇa.²

The First Discourse in which the Buddha was to have fully stated his position as a thinker and teacher ought to have borne the title of *Dhammatakka* rather than that of *Dharmacakka*. In this Discourse he was expected to dwell directly upon the two topics of Nirvāṇa and causal genesis before introducing to his audience—the first band of Five Disciples, the topic of the Path, tenfold or eightfold.

As proved by other Buddhist Canonical texts, the two extremes (dve antā) mentioned in the traditional First Discourse, were not the only pair of extremes that were to be avoided by the Buddha's disciples. The Buddha spoke of three other pairs of extremes that were to be met by the golden

1. *Buddhist Suttas*, p. 141.

2. *Sutta-nipāta*, p. 214, Verse 1107; Senart, *Le Manuscrit Kharaṣṭhi du Dhammapada* in J. A., 1897, English Translation in the *Prakrit Dhammapada* by Barua & Mitra, p. 19.

mean (*majjah*, *madhya*) supplied in the well-known formula of causal genesis, while the noble tenfold or eightfold path supplied the golden mean to bridge up the gulf between the pair of extremes introduced in the accepted First Discourse.¹

Had the sutta been known in its present form to the early Saṅgitikāraṅkas and considered so important as the very First Discourse of the Buddha, it is not easily accountable why it had not found its place in the Dīgha and the Majjhima Nikāyas, specially in the latter. The Sutta which was considered most important by the rehearsers of the Majjhima Nikāya was the Mūlapariyāya and not the *Dhammacakka-pavattana*.

The *Ariyapariyesana Sutta* of the Majjhima Nikāya, while giving an account of the Buddha's marvellous performance at the Deer Park of Rṣipatana, does not introduce the famous discourse on the topic of the Middle Path and Four Noble Truths. It has nothing to say about two extremes. According to this Sutta, the Buddha had expounded his doctrine to the five Bhikkhus in the following words: "Fivefold are the pleasures of sense, almsmen, namely, visible shapes apparent to the eye, sounds apparent to the ear, odours apparent to the nostrils, tastes apparent to the tongue, touch apparent to the body ; all of them pleasant, agreeable, and delightful, all of them bound up with passion and lusts. All recluses or brahmins who partake of these pleasures with greed and blind appetite, without seeing the perils which dog them, and without realizing that they afford no refuge, all such people are to be conceived of as having fallen into misery and into calamity, and as being at the mercy of the Evil One. . . . But all those other recluses or brahmins who partake of the fivefold pleasures of sense without greed and blind appetite, but with discernment of the perils which dog them and with a realization that these things afford no refuge,—all these are to be conceived of as not having fallen into misery or into calamity".

The Buddha concluded his discourse by giving an account of the nine accessive trances (*samāpattis*) by means of which the highest state of consciousness experiencing the peace of Nirvāṇa might be realized.²

The above account of the Buddha's discourse at the Deer Park of Rṣipatana would seem one-sided and incomplete as it

1. *Saṃyutta*, II, p. 77 ; III, p. 15 ; *Āṅguttara*, I, p. 173 ; III, p. 440 ; *Law. Concepts of Buddhism*, p. 48.

2. *Majjhima*, Vol. I, pp. 174-5.

has nothing to say about Causal Genesis, which was accepted by the Buddhists of all schools and sects as a universal creed. If we are to believe a very early Buddhist tradition in the *Vinaya Mahāvagga*, the Venerable Aśvajit who was one of the first five disciples, when asked to point out the central thought in the Buddha's doctrine, held out nothing but Causal Genesis.¹

The *Ariya-Pariyesana* Sutta definitely mentions, however, that the noble quest of the Bodhisatva led ultimately to the discovery of Causal Genesis and the blissful experience of Nirvāṇa.² Other accounts, whether earlier or later, purport to be the same. If so, the Buddha in the first statement of his position as a thinker and teacher was expected to have introduced and dealt with these two topics: the Causal Genesis and the attainment of Nirvāṇa, along with the idea of the path leading to the goal.

The question still arises—had the Buddha presented his doctrine in the form of the four noble truths or differently? I have so far maintained that the traditional First Discourse would warrant us to reject the first alternative. In his first address, the Buddha was required not only to state his own doctrine but also to contrast it with those of others that held the field. As contrasted with the positions held by other teachers of the age, his was that of a golden mean (*majjha, madhya*). As regards the thought, the mean was represented by *Pratītya-samutpāda* or Formula of Causal Genesis. As regards the path, the mean was represented by the noble tenfold path.

1. *Vinaya Mahāvagga*, p. 40.

2. *Majjhima*, Vol. I, pp. 167-8.

THE ORIGINAL INHABITANTS OF GUJARAT

By

P. G. SHAH, M.A., B.Sc.

Gujarat is a land of paradoxes. Bounded on three sides by the sea or the deserts left by the receding sea, and the fourth by mountainous tracts of the Arvālli range on the north-west and the Sahyādri range in the south-west, it combines in its peoples both the adventurous spirit of a maritime nation and the insularity of a semi-detached peninsular population. The climate presents contrasts of humid coastal areas alternating with dry districts at the centre : the barren hilly tracts of Gīrnār and the unhealthy jungles in Panchmahāls bear no comparison with the rich fertile soil which has earned for this province the title of "garden of India", a great part of which was known for long as the good country—Surāshtra. It is the hospitable climate of the peninsula and the kind and hospitable nature of its people that has encouraged immigration from all parts of the world,—of conquerors and refugees alike. The result is a complicate mixture of various racial types and a large number of castes and subcastes which predominate the social life of the people of the province. The forces of foreign immigration have been so very powerful that even the name Gujarat represents a predominantly foreign element in the population. This paradox of a country named after its erstwhile conquerors, while its original inhabitants are in complete obscurity is not uncommon in human history. The Gujars after whom the mainland of Gujarāt is named, and the Kāthis who were responsible for the change of the good old name Surāshtra into Kathiawar both represent important tribes whose history is as interesting as their origin is obscure.

2. *Gujar Empire in the North.* The immense vitality of the Gujar race after which this province is known can be judged by the large number of colonies that have been left by them. The modern district of Gujrat in the Punjab which is a sub-montane territory between Jhelum and Chenab rivers with a large percentage of Gujar population and with the neighbouring range of hills locally known as the Gujrat range, forms the first colony. Next is the Gujrānwala district across the

Chenab with a smaller percentage of Gujar population. This powerful Gujar Kingdom in the Punjab had acquired sufficient importance in the ninth century to be mentioned in Kalhana's *Rajatarangini* as an important conquest by Sankaravarma of Kashmir. The hordes of Gujars, Huns and other allied tribes which had thus established themselves in the Punjab in the 6th century had sent advance guards both towards east and south. It seems that they were subjected to a severe defeat by the Malwa Emperor Yashodharma in 533 A.D. and by the Kanauj Emperor Harsh Vardhana. The defeated hordes directed themselves to Rajputana and established two kingdoms both described as Gujaratrā one in northern Rajputana which was described by Al Beruni (A.D. 917-1039) as having its capital at Bazar or Narayan in modern Jaipur territory, and another in south-west Rajputana at Bhinmal (Shrimal) now in Jodhpur State. The Gujar kingdoms at Bharoch (Broach) and at Valabhipur described by Yuan Chwang and Huen Tsing in the 7th century provide a modern link with the province of Gujarat. By this time the Gujars had become Hindus and actually acquired the rank of Kshatriya Kings.

3. *Transformation of Gujar clans into ruling Rajputs.*

Dr. A. F. Hornle* expresses the opinion that the central Asiatic peoples that invaded India in the 6th century which he calls by the name of Gujar clans are responsible not only for the Hun and Gujar element in the Indian population but also for other races like the Chālukyas, Gujar-pratihārs, Parmārs, Parihārs, Kachhwas, Chāpas, etc. This is an interesting example of formation of new races by gradual fusion with the local population. The nomadic tribes from Central Asia were within three or four centuries transformed into mighty cultured Rajput races, famous for their chivalry, patronage of learning, and culture. A detailed description of this process given by Sir James Campbell¹ and in the Todds' *Annals of Rajasthan*. They were purified by fire and the Brahmin priests gave them each a genealogy a family goddess and a system of worship. The fire purified tribes Agnikulas, include Chuhanas (Chaturhans—four-handed) Parihars (Pratihara—door-keeper), Parmārs (foe-striker) Solanki (Chalukya, born of the Chulaka—palm of Brahma) and other including the Chāpas, Chāpot-katas and Chāvdas were all Gujars or connected with them.

**Journal of Royal Asiatic Society*, 1905, page 3.

1. *Bombay Gazetteer*, Vol. IX, Part 1—Appendix 3.

Bhinmāl (Srimāl) was, in the first half of the 7th century, the capital of a kingdom ruled by Vyāgramukh Chāpa and the Chāpas formed a sub-divisional of Gujars. A coin of this king was found with the Huna coins of 6th and 7th centuries in Hoshiarpur district of the Punjab, and this supports the view that there was free communication between the Huna-Gujar rule in Northern India, when the Gujar pratihara kingdom of Kanauj was the paramount power in Northern India under Mihirbhoja and his son (840-908 A.D.) and included the kingdoms of Surashtra (Kathiawar) and Karnal in the Punjab.

4. *The Gujar sub-stratum in the agricultural communities.*

Those of the Gujars who could not be lifted to the rank of the ruling classes were left to ordinary pursuits of life, and in most of the areas from Kashmir to Deccan where Gujars are found, they are not engaged in higher occupations than cattle breeding and milk producing. Yet so powerful was the force of the ruling race during the zenith of its power that the Gujars had been absorbed and accepted in the Hindu population, especially in the Province of Gujarat. There are even at the present day Gujar Brahmans, Gujar Vaniks (traders) Gujar carpenters, Gujar sonis (goldsmiths) Gujar potters and Gujar masons. In the Kashmir Valley in the Punjab and in some other parts of Northern India, even though the Gujars have been mostly converted to Islam and owing either to the original undiluted older strain or to climatic conditions, their racial insularity is still evident. But it may be safely stated that in Gujarat those Gujars who left the nomadic life of the cattle breeders and settled down to the family life of the agriculturist (Kutumbins) were accepted in the rank of the Kunbis and that there is a large sub-stratum of Gujar element in Gujarat Kunbi agriculturists. That the Gujarat Kunbis are Gujars is supported by the similarity between the sharehold tenures in the Punjab villages and the Bhagdar and Narvadar tenures in Kunbis villages in Kaira.¹ The anthropometric measurements² of the Kunbis and their co-efficient of racial likeness point to a great difference between the Kunbis on one hand and other population of Gujarat like Nagar Brahmans, Banias, Brahmakshatriyas. This justifies the conclusion that the Kunbis are probably more closely allied to the Gujars than the rest of the population.

1. SIR GEORGE CAMPBELL, *Bombay Gazetteer*, Vol. II, part 1, p. 991.

2. *Census of India*, 1931, Vol. I, part II, p. 27.

5. *Language*.—The linguistic evidence in favour of a vast empire under the influence of Gujar clan has been ably marshalled out by Sir George Grierson.¹ The semi-nomad Gujar graziers, who roam over the lower Himalayan Range from the Afghan Frontier to Kumaon and Garhwal speak a dialect of Hindi distinct from Pashto and other languages spoken by their neighbours. The grammar of speech of the Gujars of the Swat Valley is almost identical with that of the Rajputs of Mewar and Rajputana. Sir George Grierson accepted the view of Vincent Smith that the ancestors of these Gujars must have migrated from Rajputana after they had acquired the Rajasthanian speech, probably in the 9th century after the Gujar Rajput power had dominated all northern and north-western India with its capital at Kanauj. A more probable theory is that there was a free communication between the pastoral sections of the Gujars who had settled in this sub-Himalaya territory, and the ruling sections of the Gujars who had acquired an empire and culture of their own. It appears that the Gujars like the earlier Khasa tribes² from Central Asia spoke an Aryan language and settled in the same sub-montane Himalayan range which gave them a climate and pastoral life similar to what they were accustomed. This tract is known in ancient literature as Sapadalaksha (a territory with a lakh and quarter of hills) runs parallel to the Himalayas for about two hundred miles from Beas to Ganges and includes the districts of Gujrat, Gujranwala, Hoshiarpur, Kangra in the Punjab and Kumaon, Garhwal and Nepal. Some clans of Chuhan Rajputs are named after this area and are known as Sapadalakhya Chuhanas. The area was referred to by Babar as Sawalakh Hills and the name is Anglicised in modern English as Siwalik range so well known to students of geology and paleontology for its wealth of unique rocks and fossils. Evidently there was free communication between this area and the plains of Gujarat and Rajputana leading to exchange of words, language and grammar. Even as late as the 15th and 16th centuries, the fully converted Gujarati Brahmans³ have migrated into Northern India and large colonies are found in Bulandshahr, Allahabad, Benares

1. *Indian Antiquary*, August, 1914, p. 159.

2. Khazars, Gazars, Ghysrs, Gujras, see *Foreign elements in Indian population* by Dr. D. R. BHANDARKAR, *Indian Antiquary*, January, 1911.

3. Pages 140, 41 and 318 of *Glossary of Tribes and Castes in the Punjab and North-West Frontier Province*, Vol. II (Lahore, 1911).

and even in the Punjab. The Gujarati Brahmans in the Punjab are regarded the highest of their class and are described as coming from Vadnagar, Visnagar and Srimal.

6. *Significance of the Kathis.*—Unduly large measure of space has been devoted to the Gujars in this article, even though they are comparatively recent foreigners, in order to give a correct back-ground to the complete picture. Like Gujars, the Kathis who have given the name to the peninsular portion of the province, probably since the Muslim period of Indian history, are not ancient inhabitants of the area. Their numerical strength is hardly of any importance at the present day to justify the change in the honoured name of Surashtra, (the good country), so well known in ancient Indian history and literature. It appears that their rapacious and predatory habits spread terror in the country which was therefore described by the Mohammadan Emperors as the country of the Kathis. They are referred to in *Mirat-i-Sikandari* and *Ain-i-Akbari* (1590 A.D.) and *Mirat-i-Ahmadi* (1692 A.D.) and also in *Tarikh-i-Sorath* as having large military importance. Abul Fazal mentions that "there are many Kathis in the country whose caste is that of Ahir". The author of *Mirat-i-Ahmadi* suggests that a higher status was acquired by the Kathis by inter-marriage with the Rajputs and also by acquiring fortresses from which they used to sally out in search of plunder and loot. The Kathis who were continuously ravaging Dhan-dhuka district are reported to have been brought to book by a special expedition by Sultan Azim Khan from Ahmedabad (1635 to 1642 A.D.). As late as 1808 Col. Walter mentioned that "Kathis are distinguished only for rapacious habits and robbery to which mode of life they attached neither disgrace nor reproach". Much of the disorder and misery throughout the country was attributed to the devastations and rapine of the members of this tribe, who have been recently and by slow degrees, reformed and made more respectable members of the community.

The Kathis have, according to one account,¹ their origin in Kurdistan in Asia Minor from where they were driven by Tiglath Pileser I of Assyria in about 1100 B.C. In the Assyrian inscriptions they are described as Khattis and in the Old Testament as Hittites. The description by Arrian of Kathis as roving tribe not under the authority of any Indian sovereign,

1. *Bombay Gazetteer*, Vol. IX, part I, section X.

corresponds with their habits in the later times. Tod mentions in his Rajasthan that according to Bhatti Annals, the Kathis must have lived in Malwa before entering the peninsula of Surashtra. Whatever be their origin, there is no doubt that like the Gujars the Kathis were foreigners and were worshippers of the Sun. They were more or less akin to the Maitraka or Mer kings of Valabhipur, who were also originally Sun worshippers but were admitted into the Hindu fold on accepting the worship of Shiva and given the highest place open to ruling kings viz. that of Kshatriyas. Even though a proportion of both sexes of Kathis is characterised by beauty of form and stature, the anthropometric measurements of the present strain of the tribe do not indicate a complete isolation or insularity of a foreign race. Dr. B. S. Guha after an exhaustive study of the Gujarat castes expresses a clear opinion that "the Kathis and the two genuine Gujarat castes viz. Nagars and Bania-Jains—are intimately related". In these circumstances, we need not attach any importance to the claims of the Kathis being considered the original inhabitants of Kathiawar.

7. Other foreign elements in the population of Gujarat.—For the purpose of ascertaining the original inhabitants of Gujarat, we have so far excluded the Gujars and Kathis, but this is not enough. The foreign element in the population of Gujarat is both varied and extensive. This is described admirably in a concise manner by the late Dr. Bhagwanlal¹ in the following passage :

By sea probably came some of the half mythic Yadavas (B.C. 1500-500) ; contingents of Yavanas (B.C. 300 A.D. 100) including Greeks, Baktrians, Parthians and Scythians ; the pursued Parsis and the pursuing Arabs (A.D. 600-800) ; hordes of Sanganian pirates (A.D. 900-1200) ; Parsis and Navayat Mussalman refugees from Khulagu Khan's devastation of Persia (A.D. 1250-1300) ; Portuguese and rival Turks (A.D. 1500-1600) ; Arabs and Persian Gulf pirates (A.D. 1600-1700) ; African, Arab, Persian and Makran soldiers of fortune (A.D. 1500-1800) ; Armenian, Dutch, and French traders (A.D. 1600-1750) and the British A.D. 1750. By land from the North have come the Scythians and Huns (B.C. 200 A.D. 500). The Gurjaras (A.D. 400-600) the early Jadejas and Kathis (A.D. 750-900), wave upon wave of Afghan, Turk, Moghul and other Northern Mussalmans (A.D. 1000-1500) and the later Jadejas

1. *Early History of Gujarat*, p. 3, *Bombay Gazetteer*, Vol. I, part. 1.

and Kathis (1300-1500). From the north-east, the prehistoric Aryans till almost modern times (A.D. 1100-1200) continued to send settlements of Northern Brahmins, and since the thirteenth century have come Turk, Afghan, and Moghuls. From the east have come the Mauryans (B.C. 300), the half Scythian Kshatrapas (B.C. 100-A.D. 300). The Guptas (A.D. 350). The Gurjaras (A.D. 400-800) the Moghuls (A.D. 1530) and the Marathas (A.D. 1750) and from the South the Satkarnis (A.D. 100), the Chalukyas and Rashtrakutas (A.D. 650-950), occasional Mussalman raiders (A.D. 1400-1600); Portuguese (A.D. 1500); the Marathas (A.D. 1660-1760) and the British (A.D. 1750)".

8. *Conflict between Brahmanism, Buddhism and Jainism in ancient Gujarat.*—While most of the foreigners came in search of booty, trade or conquest and some came to seek refuge from religious or racial persecution, it is useful to remember that during the religious wars between Buddhism and Brahmanism, the physical prowess of the foreigners was in great demand on both sides. Where a ruling king refused to accept the domination of one or other religion, the support of a foreign invader was often welcomed. The iron rule of the Mauryans over Gujarat, B.C. 319-197, tempered as it was with the beneficent activities of good kings like Asoka who held complete sway over Gujarat, Saurashtra and Malwa, was based on bloody wars in the name of religion. The suppression of Brahmanism by Buddhism and of the Yadavas by the Mauryas left rancour in the minds of the Hindu population which is reflected in the sacred books of the times. Mahabharata, Anushasana Parva, and Vishnu Parva consider Saurashtra, Lata, and Anarta, as Mlechha countries and forbid¹ visits except on pilgrimage. The rule of the Greeks (Yavanas, B.C. 180-100), hardly removed this impression, and the Mallayas, Pallava, Meda and other predatory tribes which came after the Greeks from Bactria to upper India did not materially change the position. Yet the Kshatriyas, B.C. 70 A.D.-398, Traikutas, A.D. 250-450, the Guptas, A.D. 910-410 and Valabhis, A.D. 509-766 all inclined towards some form or other of Hinduism. The Guptas are supposed to have come from the east by the Malwa route and so also the Valabhis, Maitrakas, and the White Huns

1. He who goes to Anga, Vanga, Kalinga, Saurashtra, or Magadha, unless it be for pilgrimage, deserves to go through a fresh purification—Dr. BHAGWANLAL—*Early History of Gujarat*, p. 13.

and Gujar tribes that have left their mark on the history of the province. By this time the ascendancy of the Brahmanism was complete and the ground lost under Buddhism was reconquered. A wave of conversion must have overcome the country and the rulers had frequently to choose between Buddhism, Jainism and Brahmanism.¹ The fire-purified Kshatriyas, recruited from tribes who believed in some form of fire or sun worship were placed on a very high pedestal as the Agnikula Rajputs, the Chuhans, Chalukyas, Solankis, Parmars and Pratihars, who dominated the history of Gujarat before the arrival of the Muslims. Even some of the sun-worshipping tribes like the Maitrakas, and Kathis were absorbed into Hinduism. The advent of the Muslim power into Gujarat though it affected the religion of the population did not affect the racial composition of the people, as the converts from indigenous population have far exceeded the few genuine specimens of foreign Muslim races that came as conquerors.

9. *Gujarat in ancient literature*.—In ancient times, the present Gujarat was not known as such but was described by its various sub-divisions² Anarta (North Gujarat with modern Vadnagar or the chief city as its capital), Surashtra (the goodly land), Lata (the country of Lattas or their modern counterpart lads), and Aparanta, the Western seaboard south of Narbadda including Sopara (surparaka). Vatsayana in his Kamasutras of the 3rd century A.D. described the customs of the people of this Lata-Vishaya, while the silk weavers of this subdivision are mentioned in the famous Mandosar inscription of the fifth century. The earliest definite trace of Gurjar Kingdoms in the south is that near Broach, Nandipuri A.D. 589-735, but the kings did not choose to call themselves Gurjars for long, and like the Vallabhi kings traced themselves to the puranic king Karna and assumed the title of Kshatriyas or Rajputs. Yet the 10th century when probably the Skandpurana³ was written Gurjaras were definitely known as an important tribe north of the Vindhya. The Dravidians are divided into five classes—Maharashtras, Andhras, Dravidas, Karnatakas and Gurjars, while the Gaudas are divided into Saraswata, Kanyakubjas, Gaudas, Utkalas and Maithilas—the two main divisions

1. *Bombay Gazetteer*, Vol. IX, part I, p. 433.

2. *Early History of Gujarat*, p. 67. B. E. Vol. I.

3. Quoted by D. R. OPPERT, *Original Inhabitants of Bharatvarsha*, Madras, 1888, p. 22.

being separated by the Vindhya mountains. If the Gurjars can be thus described by the term Dravidian used in a very loose sense, it is not difficult to accept Dr. Oppert's theory based on consideration of the Dravidian Philology that Mallas, Mhars, Meds, Ballalas, Ballas, Bhillala, Bhills, are inter-connected tribes with similarity of Dravidian origin. The Bhills have therefore important claims to be regarded as one of the most ancient tribes of India.

10. *The Bhills*.—The only tribe that can lay serious claims to antiquity and which is yet living a semi-detached life connected with Gujarat is that of the Bhills. Like some other ancient tribes they are mentioned in Sanskrit literature. In the later Samhitas and Brahmanas they are described as Nishadas.¹ This was a generic term for the non-Aryan tribes beyond Aryan control, and is explained where it occurs in the Vajasnayi Samhita as meaning Bhillas or Bhils. They may be considered either counterparts or descendants of Dasyus' of Rig Veda described also as Kirats, Pulinda, Chandala, Sabara etc. Ptolemy² also describes them as phyllitai leaf-clad. The Bhils have at present spread themselves on the "Bhilwara" land situated on the hills bordering on all the three sides of Gujarat, Maiwar, Marwar, Malwa, C.P., Central India, Gujarat and Panchmahals. All these areas contain varying proportion of definite Bhil population. This area is more or less identical with the kingdom of Nishadas in the south-east of Madhyadesha, as described by Varahamihira in Brihat Samhita. Kathasaritsagar of Gunadhya 6th century A.D. mentions powerful Bhil chiefs opposing the progress of an Aryan king through the Vindhyas. Bhils are however more ancient than either the Aryans or the Dravidians, for the name itself is derived from a Dravidian word "Bil" for a bow, which is the characteristic weapon of this tribe. We might not attach much importance to the legend about Mahadeva marrying a Bhil wife or about Parvati treating the five Bhils as her brothers to whom the sacred bull—Nandi is given as "Dahej" (bride price) or the origin of the Bhil from the thigh of the sage Vena, but they are useful in indicating a long connection of the Bhil tribes with Hindu civilisation.

11. *Anthropometric evidence*.—Among the aboriginal races of India scientifically examined by anthropometric standards for the first time by Dr. B. S. Guha in the census report

1. *Vedic Index*, Macdonell Keith, Vol. I, pp. 453-4.

2. *ENTHOVEN'S Tribes and Castes of Bombay Presidency*.

for 1931, the Bhils stand out prominently as a land-mark. They are distinguished both from Negroid elements in the South India or Mongoloid types dominant in Burma, Brahmaputra Valley, and parts of Eastern India. The Bhils are regarded as representatives of a type predominant among the aboriginal tribes of Central and Southern India which is more or less allied to the Veddas of Ceylon, the Toalas of Celebes and Sakais of the Malaya peninsula, and a primitive form of which is seen among the aborigines of Australia. The characteristics of this type are a short and moderately high head with strongly marked brow ridges, broad short face, mouth slightly inclined forwards and small flat nose with the alæ extended. The hair is black and may vary from wavy to curliness and the skin colour is a shade of dark chocolate brown, approaching black. The Bhils represent this type though the hair is neither wavy nor curly and are similar to the Chenchus of Hyderabad territories as judged by the co-efficient of Racial likeness. Some scholars are so keen on the Bhils being regarded proto-types of this race that, even after taking into consideration the measurements and skulls found at Mohenjo-dāro and Harappa, they would reject for them such terms as pre-dravidian, proto-australoid or veddoid in favour of the term 'Nisadic'¹ which was used by the Vedic Aryans for the more ancient races beyond their control. The antiquity of the Bhil race and a closer study of its somatic characters, by blood and skin tests is likely to throw greater light also on the origin of human species in the country. It is evident that Gujarat was a Dravidian country before it was Aryanised but whether a more ancient race than the Bhils ever lived in this part of the country is a problem which requires further investigation. The Kolis² are sometimes referred to as the original inhabitants of the plains of Gujarat, but it is more likely that the Bhils and Kolis are allied rather than independent races.

12. *Linguistic evidence.*—Apart from historical and anthropometric data, the linguistic evidence shows a close relationship between the modern Gujarati language and the dialects spoken by the Bhils. The map of the Bhil country prepared by Rev. Thompson⁴ and reproduced here describes how the Bhil colonies have been driven from the plains of Gujarat, Rajpu-

1. MACDONNEL KEITH, *Vedic Index*, Vol. I, p. 453-4.

2. *Census Report*, 1931, Vol. I, Part III, p. 13C.

3. H. B. ROWNEY, *Wild tribes of India*, p. 50.

4. *Rudiments of Bhili language* by Rev. C. S. THOMPSON, 1895.

tana, Central India, Central Provinces and Khandesh into the hilly tracts of the Vindhyas and Aravallis. During the rigorous rule of the Maharattas this pressure was specially intensified and gave one more experience of the uncertain life which this timid tribe had to live during centuries of its listless existence. Even though the Bhils are often regarded as a turbulent tribe accustomed to thieving and robbing, it cannot be said that they have not had a culture and a life of their own. There are several ruling chiefs belonging to this tribe, and inter-marriage and social contact with Rajput families have led to the formation of more respectable castes like Naikdas, Thakurdas, Bhilalals etc. The blackest classes known as Kali-Praja, the black people, have been ground down by centuries of backwardness, when, however, opportunities are available, the darker aboriginal races in Gujarat have asserted themselves. Anthropometry, particularly by means of evidence of the depth colour of the skin and the forward throw of the mouth, has shown that the so-called higher castes of Gujarat particularly some sections of Banias, Jains, and Brahmins show a varying proportion of inter-mixture of this aboriginal blood. But what is most remarkable is that the language spoken by the Bhils is based on a grammar which is more similar to the Gujarati language than any other. It is true that when the tribe has had close contact, as in the north, with Rajasthani or Marwari or Hindi, or in the east and south, with Marathi, a number of words of these languages have been absorbed into current Bhili language. But the building of this superstructure on the foundation of Gujarati grammar points both to the closer cultural contact of the Bhils with the Gujarati speaking population and the geographical origin of the tribe. Out of the total population of about 22 lakhs Bhils, about 7 lakhs are returned from the Rajputana agency, about 6 lakhs from Central India agency, about 4 lakhs from Bombay Presidency proper, about 2 lakhs from Bombay States, and an equal number from Baroda State. It might not be possible at the outset to approach the Bhils in Rajputana and Central India agencies, but it is up to the custodians of Gujarati culture to see that the ancient Bhil population nearer Gujarat is reclaimed fully to the language and culture of the land to which they originally belonged. While Gujarat sends out its cultural and trade emissaries throughout India from Kashmir to Cape Comorin and Karachi to Calcutta, it should not neglect the cultural development of the original inhabitants of Gujarat staying almost next door.

13. *Prehistoric evidence.*—The long historical connection with Hindu civilisation as mentioned already has converted the aboriginal race almost to Hinduism. Though on the one hand the Bhil worships Shiva and Parvati and many rounded stones smeared with red-paint, and practises animal sacrifices to the local goddesses, he has not left some of the old practices of building cairns, cromlechs, dolmens or stone platforms or of depositing images of horses for the use of the souls of the dead for shortening their journey to heaven. The ancestors of the Bhils in pre-Aryan and pre-Dravidian times have left megalithic monuments which corroborate the pre-historic origin of this tribe. Megalithic structures are not common in Gujarat but the description of one seen at Palanpur in December, 1873, by Major J. W. Watson¹ and the sketch given by him point to the existence of structures like the Dolmen commonly noticed in the Neolithic age throughout the world. The pillars of the porch in this structure are about four feet high and the great capstone is some ten feet long by six feet broad, while the capstone of the inner chamber is somewhat less. In the centre is placed a 'Palia' or monument stone, but is without any inscription. The structure resembles, on the one hand, the dolmen and other megalithic monuments of the Palaeolithic age and on the other hand the crude differentiation between the outer chamber and inner chamber is a forerunner of the inner and outer 'mandapams' of all Hindu temples. The monument occurs in an area from which the Bhils have been driven out into the hills, and it would not be incorrect to assume that the original race responsible for the structure were connected with the Bhils.

14. *Further Research.*—When it is stated that the Bhils are the representatives of the oldest inhabitants of Gujarat, it should not be lost sight of that more ancient residents in the area may yet be traced and identified. There is a vast material of Palaeolithic and Neolithic relics buried in the sandy and 'loess'-covered hills of North Gujarat, awaiting the research student. The vast collection of the late Mr. Foote² of the finds from Gujarat has not been either critically examined or carefully studied. The great number of Palaeolithic relics in the lower alluvial shingle beds of the Sabarmati Valley, Neolithic finds in the form of common flakes, pygmy flakes, and cores of agate,

1. *Indian Antiquary*, Feb., 1874, pp. 53-54.

2. R. B. FOOTE—*The Foote Collection of Indian Prehistoric and Prehistoric Antiquities*, Madras, 1916.

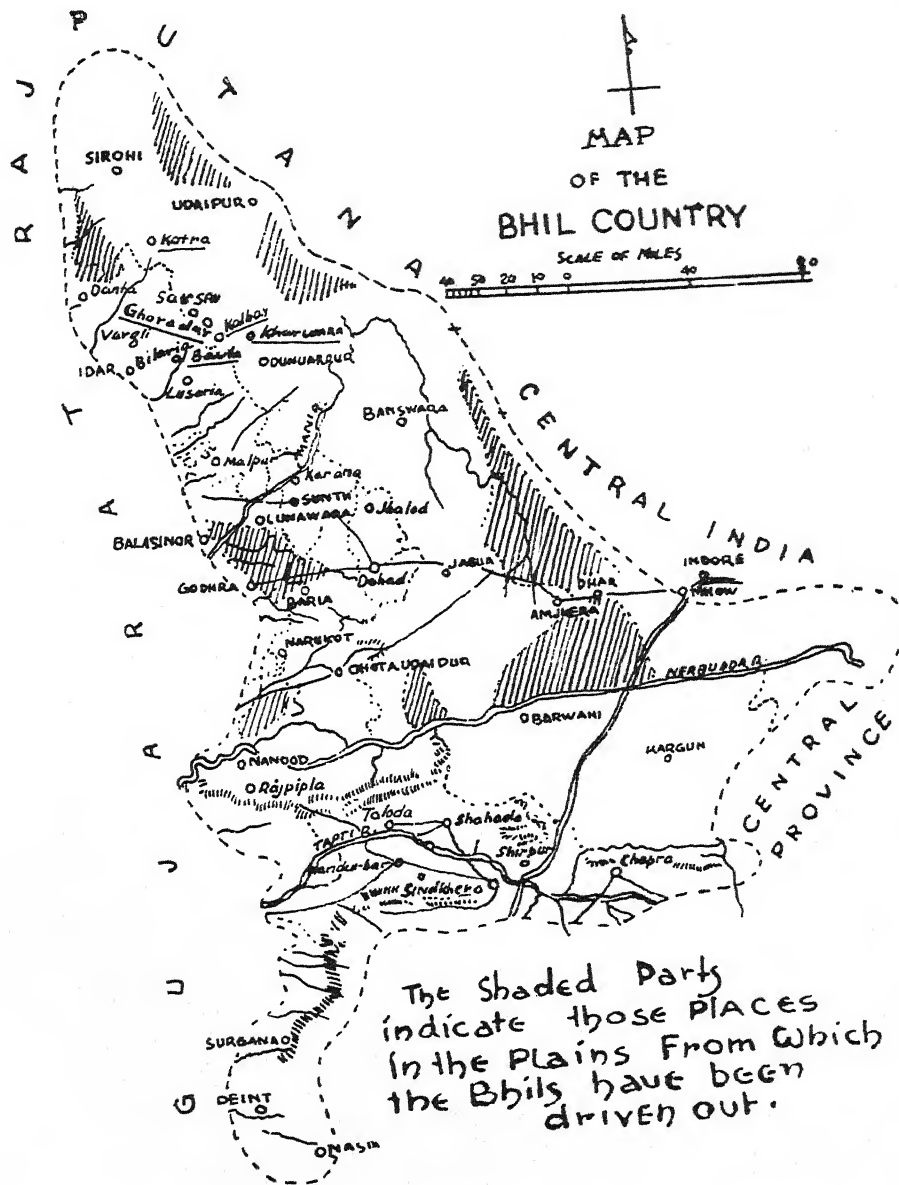
chalcedony, quartz, and chert near the town of Bahadurpur, maceheads, thumbstones, chank shell bangles and a variety of pottery relics found on the banks of the Tapti in Gujarat, and of Shetrunje river in Kathiawar, in Vala State and other places deserve greater attention than what they have received. An iron age site of great interest at Vasravi in Valachha taluka of Baroda State is described by Foote at p. 143 of his book, where he mentions also copper smelting remains at Rupavati near Damnagar in Kathiawar. The sites of these iron and copper ores explains, according to Perry,¹ their great attraction for immigrant tribes who went long distance in search of these valuable metals. That these tribes were pre-Dravidian and were allied to the Bhils might be inferred from the occurrence of the Veddas and allied tribes in similar areas with traces of ancient iron deposits in South India. While it is significant that abundant relics of Palæolithic and Neolithic age and sites belonging to the Chaleolithic times and the more recent iron age have been brought to light, it is unfortunate that no human bones or skulls, have yet been found among the prehistoric relics in Gujarat. The discovery of the prehistoric relics consisting of vases, goblets, dishes, toys, bangles, pieces of chert, and bricks at Rangpur² in Limbdi State, Kathiawar, while it serves to show a high stage of development of the potter's art and to connect the history of the place with the Indus Valley civilisation of Mohenjo-dāro and Harappa, does not go much beyond the type of glazed and painted pottery relics already described by Foote. The same is the case with the findings of Dr. Ghurye at Vala. Further research is necessary before the problem of the original inhabitants of the country is solved satisfactorily. The blood group tests, which have been applied to other primitive peoples in India, have not yet been extended to either the Bhils or to other population in Gujarat. Unless this is done³ it will be very difficult to establish the true relationship between the Bhils and the neighbouring population. The work so far done⁴ in this direction has proved the complete divergence between the South Indian and Central Indian primitive tribes, and much work is necessary in the same direction among the primitive tribes of Gujarat.

1. W. J. PERRY—*The Growth of Civilisation*.

2. *Archæological Survey of India Annual Report*, 1934-35.

3. *Aboriginal Races of India*, Dr. B. S. GUHA, p. 682, "*Science and Culture*", June, 1939.

4. See *Journal of the University of Bombay*, July, 1939.



KATHIAWAR AND KARNATAKA. ✓

By

B. A. SALETORÉ, M.A., PH.D. (LOND.), D.PHIL. (GIESSEN).

What strikes a student of ancient Indian history, while dealing with the geographical situation of the provinces, is the very close contact that existed between them, especially in cultural and political matters. In this paper we shall concern ourselves only with the cultural aspect of the question, and that relating to the two distant provinces of Kāthiawar and Karnāṭaka in the twelfth and thirteenth centuries A.D. The details we shall enumerate from only a small section in the long and interesting story of the inter-relations between Kāthiawar and Karnāṭaka from the earliest times down almost till our own days.

Stone inscriptions found in Karnāṭaka enable us to assert that Karnāṭaka honoured Kāthiawar in a singular manner. A well-known deity was called after the whole province of Saurāṣṭra. This deity was set up in distant parts of Karnāṭaka. A stone inscription found at Kuppehālu *grāma*, Kadūr district, Mysore State, and dated A.D. 1173 relates the following :— That in that year the Hoysala monarch Ballāḷa Deva II celebrated the festival of his coronation in his capital Dorasamudra. On this occasion he made a gift of the village of Kuppehālu in the Āsandi-nāḍ free of all imposts, for the god Saurāṣṭra-Somanātha, evidently in the capital itself. It was then that Nāga Deva, the son-in-law of Mālgi Jīya, and the priest of the god Saurāṣṭra-Somanātha, constructed a tank and made a grant of land for the god Nandikeśvara.¹

More interesting details about the close contact between Karnāṭaka and Kāthiawar are furnished in one of the many stone inscriptions found in front of the Basavaṇṇa temple at

1. *Epigraphica Carnatica*, VI, Kd. 4, p. 2. We may observe by the way that the family deity of the chief of Kāreyapaṭṭaṇa, which was situated on the western coast, was called the god Saurāṣṭra-Soma. This is related in a later record dated A.D. 1428. *E. C.*, XI, Hr. 52, p. 110. A more prominent chieftain named Nañja Rāja Oḍeyar, the ruler of Ummattūr, calls himself "Lord of the deity of Saurāṣṭra" in a record dated A.D. 1512. *E. C.* IV, Ch. 107, p. 14.

Huruḷi, Sohrab tāluka, Mysore State. It is dated A.D. 1216, and it informs us that under the Yādava monarch Simhaṇa Deva was the Mahārāja Droṇapāla Deva, who was of supreme piety, and who had settled in the Prabhāsa-kṣetra (obviously Prabhāspaṭṭaṇa) of the Saurāṣṭra country. Droṇapāla Deva gave the villages of Eḷebālḷi and Sirivūr (location specified), for the permanent daily worship of the god Somanātha, through his great treasurer Ṭhakkūra Kannara Deva. The god referred to was located in Bandanike, the chief city of Nāgarakhaṇḍa; and the donor, so we are told in the epigraph, had secured the approval of five orders living in the city of Bandanike.¹

We now turn to a great Kāṭhiawar noble family that had settled down in Karnāṭaka. This was the Vāṇe family which belonged to Deṇagāve in Vāṇa-kheḍa in Kāṭhiawar. Four stone inscriptions relating to this royal family have been found in the Sohrab tāluka of the Mysore State; and all of them deal with the activities of a prominent member of the Vāṇe family between the years 1241 and 1249 A.D. The four epigraphs were discovered in front of the Kaiṭhabeśvara temple in the village of Cikka Cavuṭa, Sohrab tāluka. The earliest of these dated A.D. 1241 is a damaged record which merely states that the Sāvanta (or Sāmanta) *Sandhāna-Siva (simha)* Vikka Deva gave a gift of one hundred *gadyāṇa* for the perpetual light of the tower of the god, obviously Kaiṭhabeśvara himself. But the other three records,—one of which is dated in the same year, while the remaining, in A.D. 1249,—give quite a number of details about this Kāṭhiawar nobleman. *Sāmanta Sandhāna-simha* was the title of Ravi Deva, who was the son of Soma Deva Vāṇe. Soma Deva Vāṇe was known as the “friend of the destitute, adorned with all good qualities, victor over his enemies”. He came from Deṇagāve which belonged to the “good country of Vāṇa-kheḍa”. About Vāṇa-kheḍa itself we are told that it was “served by wise men, praised by the voice of true poets, an abode of all comforts, distinguished in the world for its attractive qualities”.

His son Ravi Deva, who had the title of *Sandhāna-simha*, is highly praised in the epigraph. He was the disciple of the Kālāmukha teacher Sarbbeśvara Deva. Ravi Deva's crowned queen was called Mallu Bai, who like her husband is also highly praised in the epigraph. Their son was Soyi Deva, about whose valour the following is related :—“Roaming over the world day

1. E. C. VIII, Sb. 391, pp. 70-71.

and night in search of mighty men who would withstand him, and finding none, Soya, as if to seek for warriors in the world of gods, entered Indra's city (*i.e.*, died) ”.

His younger brother was Ekkana Deva whose younger brother was Vikrama Deva. The wife of Vikrama Deva was called Ellaha Devī. Both Vikrama Deva and Ellaha Devī gave a gift of money for charitable purposes to the Kālāmukha teacher Rudraśakti, who was the *guru* of Vikrama Deva. It is evidently this same Vikrama Deva who is called in one of these records Vikka Deva, and who continued to append his father's title of *Sandhāṇa-simha*. Vikrama Deva gave to Rudraśakti Deva in A.D. 1241 125 *gadyāṇa* in order to provide a settlement for the god Koṭīśvara. An additional grant of 100 *gadyāṇa* was given by the same ruler to provide for the offerings at one season of the god Koṭīśvara of Kuppaṭūr in the same year.¹

The teacher Rudraśakti Deva mentioned above was a well-known Kālāmukha *guru* about whom we shall say nothing for the present. It is enough to note that in the twelfth and thirteenth centuries A.D. Kāthiawar and Karnāṭaka were intimately connected with each other in matters relating to culture and religion.

1. E. C. VIII, Sb. 270-273, pp. 44-45.

SPECIMENS OF PORTRAIT-SCULPTURE FROM GUJARAT.

By

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Image worship. Image worship can be traced back as far as Vedic times in India. Image worship is a practical thing and is a grand solution of the difficulty of conceiving a limitless Absolute.

Mental image precedes the actual. In all Indian art, a clear and definite mental image, always precedes the realisation of the idea in material form, with the sculptor's chisel or the painter's brush. An immemorial tradition has provided the Indian sculptor and painter with an elaborate ritual designed to assist the artist in working the exact mental image.¹ When the mental image is perfect, the plastic or pictorial likeness of it follows swiftly and surely, without faltering or experiment.

Necessity of image-worship. To a *yogin*, who has realised the Supreme Brahma within himself, there is no need of any temple or any divine image for worship, as such a thing would lead him to rebirth ; but to those, who have not attained this height of realisation, various physical and mental modes of worship are prescribed ; and rules of various kinds are laid down in relation to conduct. The *Jābāla-upaniṣad* distinctly asserts that the *yogin* perceives Śiva in his heart and the images are meant only for ignorant men.² But for the masses, image worship was considered necessary and as a result, a great number of images were made.

1. The ritual of a Buddhist image-maker is given by Prof. Foucher in his "Iconographic Boudhique".

2 " शिवमात्मनि पश्यन्ति प्रतिमासु न योगिनः ।
अज्ञानां भावनार्थाय प्रतिमाः परिकल्पिताः ॥ "

But these images were of the gods only. Śukrāchārya, in his "Śukra-nītiśātra" says that, "To make human figure is bad and even irreligious. It is far better to present the figure of a god, though it is not beautiful, than to reproduce a remarkably handsome human figure". Also the making of likeness of mortals "even with their characteristic features accurately depicted" is considered '*asvargya*' i.e. not leading to heaven.

The prejudice against the ordinary portraiture in Hindu sculpture became less rigid afterwards and was extended to the human beings who may have attained god-ship. The idea देवो भूत्वा देवं यजेत् । i.e. "one should worship god after becoming himself a god" gradually gained ground and resulted in a form of hero-worship, even of mortals. The kings, warriors, ministers, saints, ideal householders, ideal *śālīs* and others who might have attained god-ship in their respective walks of life, were regarded worthy of worship befitting the gods.

There are clear cases of deification of royal ancestors whose posthumous images were set up in temples made by their direct descendants and made the object of a cult ; the statue of Sembianma devi set up by Rājendra-chola-deva I in 1020 A.D. is an instance in point.¹

From numerous references in Sanskrit literature it appears that painted portraiture was quite common in ancient India, but allusions to sculptured portraits, as distinguished from images of gods, are rare. There are several in Rāmāyaṇa, one in which Rāma had a golden image made of Sitā, as her presence was required in the great horse-sacrifice. In other instance, Rāvaṇa had ordered to make a life-size model of Rāma's head and brought before Sitā, who "seeing the severed head and finding in the complexion of the face in the eyes, in the hair, and in the jewelled knot, a likeness to the husband and recognising it by all these signs and marks, became exceedingly sad, and crying like a kukari, denounced Kaikeyi bitterly."²

In Bhāsa's "Pratīma Nāṭaka," Act III we have explicit

1. See *Portrait Sculpture in South India* by Mr. T. G. ARAVAMUTHAN, p. 33. fig. 9. India Society, London (1931).

2. Cf. *Yuddha Kāṇḍa*, 32.

evidence of the practice of setting up the images of ancestors in a building called *devakula* and *pratīmāgrīha* especially built for the purpose. From the play we learn that worship was offered to them. Also so much was the excellence of the worship, that Bharata was not only able to recognise the statue of his own father, but even could not tell whether the figures in the *devakula* represented gods or human beings.

There can be no doubt that throughout the period in which stone-sculpture was produced, images of donors were set up in connection with their foundations. At Mohenjo-Dāro we have evidence of some undoubted portrait figures of stone, though their precise cultural significance is not yet identified. The latter statues were made and set up for somewhat varying ends and in variety of situations. We have typically, the placing of figures representing donors set up in temples built and dedicated by themselves. There exists some very remarkable royal portrait-heads of Mauryan date at Sār-nāth and effigy-reliefs at Amarāvati. An indisputable life-size portrait of king Kaniska (c. 120 A.D.) was found near Mathurā. The statues of the predecessor and son of Kaniska are also found. The alto-relievos on the inner facades of the *chaityas* at Kārli and Kanheri are said to represent the families of Āndhra dynasty. Another statue, found at Parkham, near Mathurā, has been identified as Kuṇika Ajātaśatru (c. 515 B.C.). All these statues justify the conclusion that portrait-sculpture had made remarkable progress in India as early as the 5th century B. C.

Other examples of portraiture are found in royal cemeteries, known as "chhatris". They are set apart at one place and usually contain statues. There are royal cemeteries at Jaipur, Jodhpur and other Rajputana capitals. The place containing royal cemeteries at Bikaner is called '*devaghara*'. The statues are worshipped every day and food is offered to them. The kings who died in wars are represented on horseback. Their *rānis*, who ascended the funeral pyres of their husbands are also represented as standing by their sides.

In Baroda State, in Gujarat, it is a custom among the ruling Gāekwārs to erect *chhatris* in memory of the departed kings. Several of the royal portrait-sculptures have been published in the "Selections from Baroda State Records," Vol. I-IV.

Coming to the cultural history of Gujarāt we find many
Literary referen- references of setting up of figures of emin-
ces to portrait-scul- ent human beings.
pture in Gujarāt.

In Merutunga's 'Prabandha-chintāmaṇi,' we have a refer-
ence to Vanarāja, while establishing an
Vanarāja, image of Pārshvanātha at Pañchāsāra tem-
ple, "furnished the same with a statue of himself as a worship-
per."¹

The same book mentions that Vimalashā, prime-minister
of Rājā Bhimadeva, having completed a
Vimalashā, temple, "caused to be made figures of dis-
tinguished kings, lords of horses, lords of elephants, lords of men
etc. and caused to be placed in front of them his own statue
with the hands joined in an attitude of supplication."

Vastupāla, the minister of Viradhavala, got to be placed in
1250 A.D., amongst the Nandīśvara shrines
VASTUPĀLA. of Śatruñjaya, statues of himself and his
son.² There can be no doubt that a thorough examination of
पञ्चरा and later अपञ्चरा or Gujarati literature would yield many
such references of actual image-sculpture.

Portraits of Kings.

As referred to above, Vanarāja had caused to make a statue
of himself at Pāṭaṇ. The original image
VANARĀJA has long since disappeared. The present
(see photo No. 1.) image is made in Samvat 1417.³ It is of

1. See *Prabandha-Chintāmaṇi* published by RĀMACHANDRA DINĀNĀTH,
p. 34. श्री पार्श्वनाथ प्रतिमालंकृतं पंचासराभिधानं चैत्यं निजाराधकमूर्तिं समेतं च
कारयामास ।

2 "गुरुपूर्वजसम्बन्धि मित्र मूर्ति-कदम्बकम् ।

तुरंग-संगतं मूर्तिद्वयं स्वस्यानुजस्य च ॥"

—श्री उदयप्रभसूरिविरचितं श्रीवस्तुपाल तीर्थयात्रोत्सव वर्णने पंचदशो सर्गः श्लोक २६.

I am indebted to Pandit Lālachandra B. Gāndhi, of Oriental Institute,
Baroda, for this and other references from Jaina literature.

3. The image bears an inscription, the last line of which reads as
श्री शीलगुणसूरि सगणे श्री देवचंद्र सूरिमिः प्रतिष्ठिता सं. १४१७ वर्षे ।
The date of this image is given by BURGESS as सं 1524 and by TOD as सं.
1352; but both these scholars seem not to have read the inscription
correctly.

white marble and is a fine specimen of Portrait-sculpture, which, however, did not appear so to Burgess, owing to "awkwardness of the pose and want of artistic merit" according to his notions.

The late Dr. Bhagvānlāl Indrajī however, was, very much struck by its fine workmanship. He Writes :—
 DR. BHAGWĀNLĀL INDRAJĪ'S appreciation. "This is clearly the figure of a king 3'-1½" high, with the umbrella of state and a nimbus round the head and in the ears the long ornaments called 'kuṇḍalas' The king wears a long beard, a short waistcloth or *dhoti*, a waist or '*kamar-band*' and a shoulder garment or '*uparaṇā*' whose ends hang down the back. Besides the ear-rings, he is adorned with bracelets, armlets, anklets and a large ornament hangs across the chest from the left shoulder to the right hip. The right hand is held near the chest in the act of granting protection (*abhaya*) in the left hand, he holds something which is not quite clear. By his side is the umbrella-bearer and five attendants. This statue closely resembles the life-size figure of a king of the Solanki period lying in the yard of a temple at Maliā about 24 miles north of Somnāth Pattana. The details of this figure belongs to the Solanki period.¹"

Next is the nearly life-size portrait of Paramāra Dhārāvārsadeva reigned (c. 922 to 927) of Chandrāvati, who was a vassal of Bhīma-deva Solanki. It is lying on the north side of Maṇḍākini Kuṇḍa on way to Achalagaḍha. This portrait is a fine example of the workmanship of Gujarāṭi portrait-sculptors of the 13th century. A single glance at it, is sufficient to see and feel the forceful personality of the king. He holds a bow in his left hand and is made to look towards three big '*mahiśas*' (buffaloes) near by. The story goes that the king, in a feat of archery, had pierced all of them, at a time, with a single arrow! He wears big 'kuṇḍalas' in his ears, armlets, bracelets and anklets. The pose of the portrait is very realistic.

1. Dr. BHAGWĀNLĀL INDRAJĪ in the *History of Gujarat*, Gazetteer of Bombay Presidency, Vol. I, Part I, p. 153.

Portrait of Ministers.

Āśāka¹ was the minister of Vanarāja ; so his image is given standing against the returning wall on the right of Vanarāja's image. It is smaller and finer in workmanship than that of Vanarāja. The inscription below is dated Samvat 1301. The athletic warrior-like standing pose of the minister is awe-inspiring, and gives a very good glimpse of the average statue of a full-grown adult Gujarāti of the times when the sculptor designed this image in proportions known to him.

Memorial Stones.

The section of memorial stones, very common in all parts of Gujarāt and Kāthiāwār, which is a class by itself, throws much light on developments of portrait-sculpture in a way. This was the cheapest, simplest and the most prevalent form of hero-worship as distinguished from that of rich and the royal families. These *pāliās* or *khāmbhis*² as they are called, are erected after a *sati*, a religious martyr or a hero killed in war. They are erected near cemeteries, temples or on the outskirts of the village. Most of them bear inscriptions :

The inscriptions, usually, mention the hero for whom the memorial is set up and the battle in which he fell ; sometimes they give the name of the author of the inscription, the sculptors of the statues, and the persons who had the stones set up and paid for the expenses. Sometimes they close with an imprecation against those who would ingrave the monument. THE PHOTO No. 4 (a, b, c,) gives typical examples of such memorial stones. There is a portrait of the warrior killed in the war. He has a sword in his right hand and a shield in his left hand. The inscription below is dated Vikram Samvat 1354.

1. It is rather strange to see the name of this minister given as Jambī by Burgess & subsequent other writers, though the name Āśāka is plainly written in the inscription below. The relevant portion is :—

“ संवत् १३०१ वर्षे वैशाख सुदि ९ शुके.....उ. आसाकस्य मूर्तिरियं सुत ठ. आरिसिंहेन कारिता प्रतिष्ठिता ॥ ”

For full text of the inscription see the “Foreword” by Mr. M. D. Desai, B.A. LL.B. in *चंद्रप्रभ चरित्र* published by आत्मानंद सभा of Ambala City.

2. Khāmbhi is from स्मरणस्तंभ, the first member of the compound having dropped, the latter part evolved as follows : स्तम्भ, खम्भ, खाम्भी.

Portraits of Saints.

Another equally important class of portraiture is pertaining to saints and *āchāryas*. The photo No. 5 is the portrait of Narasimha Mehtā, (circa samvat 1470-1536) the Gujarāti *bhakta*-poet of an all-India fame. The statue is from Narasimha Mehtā's chorā, in Junāgadh. It is about 4' height. He wears a Junāgaḍi turban on his head and a short waistcloth or *dhoti*. He has *tulsi-mālās* on his neck and round his elbows. He holds *karatālas* in his hands and seems to sing a *bhajana*. The calmness of his features and the whole attitude compels our adoration (see Photo No. 5).

Portraits of Donors.

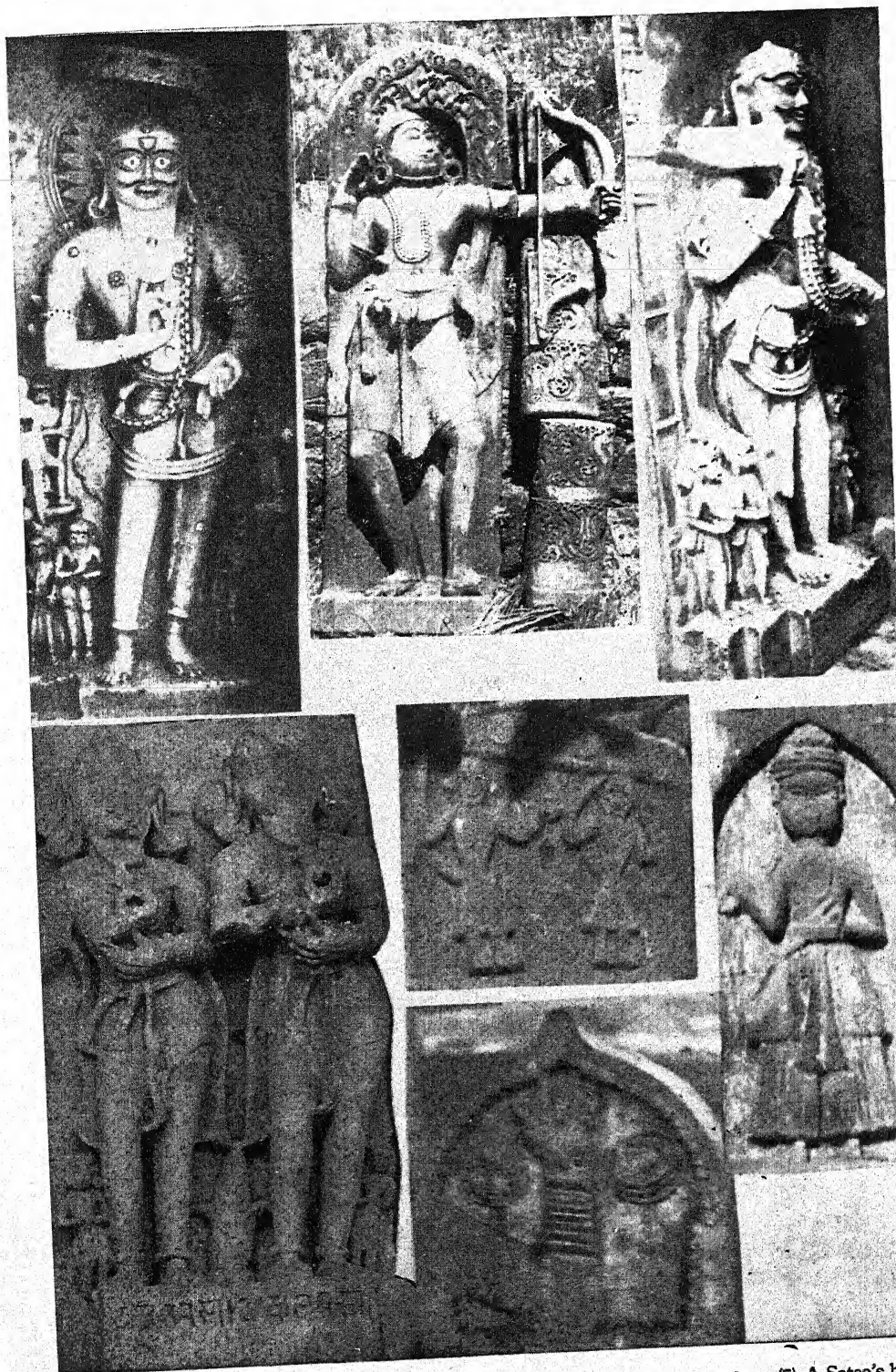
The last class of portraiture is that of the donors who might have helped to build temples or made princely donations towards some public cause. The well-known names of Vimalaśā,¹ Vastupāla and Tejapāla need not be referred to again.

Photo No. 6 shows us portraits of two unknown donors. The portraits are about 2 feet high with their faces somewhat mutilated. The inscription below gives their names as Thakkar Punamshā and Thakkar Valamshā.

The few examples introduced through this note, show that Gujarāt is a rich mine of fine sculptural remains, which go to point out that, Gujarāt had its own school of sculpture, as several specimens of portrait sculpture are traceable in this part of India.²

¹ The portrait of Vimalaśā, Vastupāla and Tejapāla are published in Muni Shri Jayant Vijayji's Gujarati volume on "ABU" Vol. I. published by Shri Vijayadharasuri Jain Granthamālā, Ujjain (1933).

² Vide Prof. M. R. Majumdar's paper on "Gujarati or the Western School of Mediæval Indian Sculpture"—*Indian Historical Quarterly*, Vol. XIV, 1938.



(1) Vanraj. (2) Dharavarsha Deva Parmara (3) Minister Asaka (4) A Warrior (5) A Satee's hand
(6) Two Warriors (7) Thakkar Punmashah & Vimalshah.

STUDIES IN
VARIETIES OF VIŚṆU IMAGES
FROM GUJARĀT.

By

Prof. M. R. MAJMUDAR.

Viṣṇu, a subordinate Vedic God.

In popular Hinduism Viṣṇu is one of the gods of the Hindu Trinity, and is conceived to be responsible for the universal protection. Viṣṇu, though an old Vedic god and mentioned in all the four Vedas, in none of them, however, does he appear as the one supreme deity. He is there identified with the Sun, and is said to have stridden over the seven regions, and to have covered the whole universe by means of three steps. The three steps of this god Trivikrama covering the earth, air and sky are mentioned in the Ṛg-Veda, but Viṣṇu is not at all prominent in the Vedic pantheon.

Gained prominence as Upendra in the Puraṇās.

There he is almost an emanation of Indra, whose younger brother—Upendra—he becomes in classical mythology. But he suddenly becomes an outstanding god by relegating to him the function of saving the world by uprooting the demons. Not stopping with this usurpation of the function of Indra, Viṣṇu proceeded to deprive Brahmā of many of his titles to glory! For while in the Śatapatha Brāhmaṇa we read of the Kūrma avatāra of Prajāpati, and in the Taittirīya Brāhmaṇa also of the Varāha avatāra of Prajāpati—all these incarnations are palmed off later on to Viṣṇu.

Viṣṇu-worship firmly established in Mahābhārata.

Viṣṇu became the object of worship, to the Bhāgavatas, Sāttvatas or the Pāṇcharātras, who were as old as the tenth century B. C., the Sāttvatas having been mentioned in the Aitareya Brāhmaṇa—one of the oldest Vedic Brāhmaṇas. In the Mahābhārata, Viṣṇu's position as a member of the Trinity is well-established; and in the time of Megasthenes (4th century B. C.) the people of India were divided into two great sections—namely the Vaiṣnavas and the Śaivas.

Prominent God in Trinity.

The Vedic triad Agni, Vāyu or Indra and Sūrya, in fact takes the place of Brahmā, Śiva and Viśṇu (Sūrya). It is possible to establish the following equations on the evidence of similiar forms :—

Solar origin of Viśṇu.

Agni = Brahmā, Vāyu = Śiva (Rudra), Sūrya = Viśṇu : wherein Agni, Vāyu and Sūrya are respectively known as the rulers of the earth, the air and the heaven. The following verse clearly points out to the solar origin of Viśṇu, wherein Viśṇu as Nārāyaṇa is described as residing in the orb of the Sun :

ध्येयस्सदा सविनुमण्डल-मध्यवर्ती
नारायणस्सरसिजासनसंनिविष्टः ।
केयूरवान् मकरकुण्डलवान् किरीटी
हारी हिरण्यवपुः शृतशंखचक्रः ॥

The idea that Viśṇu is the Sun, appears to be still maintained in the worship of the sun as Sūrya-Nārāyaṇa. The Mahābhārata, after referring to the twelve Ādityas as the sons of Kāśyapa by Aditi, declares that the twelfth Āditya is Viśṇu, who though the latest born, surpasses all Ādityas in the greatness and glory of his attributes.¹

Iconography of Sūrya and Viśṇu compared.

Iconographically, the representation of the Sun, closely resembles that of Vāsudeva in general appearance and in many details. It is noteworthy also that as the Sun is one of the forms of Viśṇu, it represents the *rājasi mūrti* or the form of activity. The moving car, the military dress including the boots, the shooting rays—all indicate a great spirit of animation (Plate I).

The Viśṇu Image.

The conception of Viśṇu's image upholding the heavens and preserving the balance between the opposing forces of evolution and involution, is a tall erect figure with a rigidly symmetrical pose² armed like the Aryan warrior with discus and mace, for he represented law and order in the universe.

1 Cf. Bhagavadgītā : Adh. X, Sl. 21

“आदित्यानामहं विष्णुः ।”

2 The image of Vithobā at Pandharpur, and the Kāusagga (Kāyotsarga) pose of Jaina Tīrthankaras are in the same, *Samabhangā* pose.

Etymology of 'Viśṇu'

Etymology of the word Viśṇu one who saturates the world or one who envelopes the whole world (from *Viś* to pervade)—also supports the solar origin. Similarly the word Vāsudeva has been metaphysically interpreted as an all-pervading being in the Viśṇupurāṇa.¹

Viśṇu in the cycle of Avatāras.

While the Aryan mind was busy legitimizing the popular gods, godlings and heroes by retouching the Purāṇas, the doctrine of incarnation was elaborated, and here Viśṇu showed a phenomenal vitality and adaptability. Viśṇu is thus very frequently represented; and in the literature on Purāṇas, Tantras, and Śilpaśāstras, descriptions of Viśṇu-images are abundantly found. Thus we find him in some of the earliest representations as that of the Vedic Trivikrama at Ellura and the cowherd-god Kṛiṣṇa of the Ābhiras on the rocks of Mahābalipuram (6th century A. D.), although Kālidāsa, had already invoked him as a cowherd in the *Meghadūta* (बह्वेव स्फुटितरुचिना गोपवेषस्य विष्णोः). Later on the cowherd-god was made by the author of the Bhāgavata Purāṇa to evolve one of the subtlest and sublimest of pastoral allegories.

Viśṇu—the protector of the Universe.

The appearance of the Viśṇu image is the ideal representation of a householder—the second in the Trimūrti—enjoying, working and flourishing in the world. His dress, ornaments, attendants—all speak of his life of the world. Hence he has been the ideal god to be worshipped by the kings—who represent metaphysically one of the three great principles of the universe viz. *rajas*—activity, intelligence, inertia. Viśṇu preserved the creation throughout by maintaining the life principle, and by removing the destructive element in his various incarnations.

Viśṇu—God of the Kings.

It was the religious injunction of the Hindus that particu-

1 “सर्वत्रासौ समस्तश्च वसत्यत्रेति वै यतः ।

ततः स वासुदेवेति विद्वदभिः परिपद्यते ॥”

Also compare Mahābhārata V:— विष्णुपुराण, अंश १, अध्याय २

“वसनात्सर्वभूतानां वसुत्वादेवयोनितः ।

वासुदेवस्ततो वेद्यः ॥”

lar deities were to be worshipped by particular sections of the whole community. Viṣṇu was the god of the kings¹ and so was Indra : thus it is natural to expect that god of the kings as well as of the Devas ought to partake of the nature of the king in features and dress. All the images of Viṣṇu of whatever variety that may be, strikingly satisfy this condition.

Royal Support to Viṣṇu-temples.

Viṣṇu images, it is worth remembering, were invariably set up under the direct royal commands. Mathura, Orissa, Magadha and Gauda were the centres for the sculptures of Viṣṇu, because of the royal leaning towards Viṣṇu-worship. So also were Western and Central India under the ruling clans of the Maitrakas of Valabhi, Chāulukyas or Solankis and Vāghelās of Anahilla Pattan and several other Rajput clans of Rajputānā and Central India.

Viṣṇu symbolized as the Central Pillar of the Universe.

The images of Śiva and Viṣṇu are two distinct thought-images inspiring the symbolism of Indian art. One represents the Himālayas as the seat of the creative power, the other as the static force which keeps an equilibrium between the two opposites—creation and destruction. The first image is that of the great Yogi, the second is that of Viṣṇu—the all-pervading spirit of life, upholding the heavens with his body, and making it the central pillar of the Universe—a singularly appropriate metaphor for the towering Himālayan snow-peaks seen from the plains of India.

Viṣṇu-Sahasra-nāma.

Viṣṇu possesses a thousand names by which he is praised. The *Viṣṇu-sahasra-nāma* is found given in the Anuśāsana Parva of the Mahābhārata. From among these thousand significant names of praise relating to Viṣṇu, twenty-four (24) are considered to be the most important, and are daily repeated by devotees in their daily prayers.

Description of the 24 Viṣṇu images.

These are first traceable in the Agnipurāṇa given in 12

1 Cf. “नृपाणां दैवतं विष्णुस्तथैव च पुरन्दरः ।

विप्राणामग्निरादित्यो ब्रह्मा चैव पिनाकवृक् ॥

—कूर्मपुराण.

verses¹. Corresponding to these twenty-four names, images of Viṣṇu are found sculptured in the Vaiṣṇava temples, where they are met with more frequently than elsewhere.

Diversity in uniformity.

Images of Viṣṇu are extremely common in this country and one's first general impression of them is apt to be one of almost tiring uniformity. The figure itself is generally treated more or less schematically with little regard to modelling on naturalistic lines in many cases, and the four attributes displayed by the several hands do not strike the casual observer as being of any very special interest. We all know that Viṣṇu is characterised by his mace, his lotus, his conch and his wheel (discus), or think we do, and when we

1 अरूपः केशवः पद्म-शंख-चक्र-गदाधरः ।

नारायणः शंख-पद्म-गदा-चक्री प्रदक्षिणम् ॥ १ ॥

ततो गदी माधवोऽरि-शंख-पद्मी नमामि तम् ।

चक्र-कौमोदकी-पद्म-शंखी गोविन्द ऊर्जितः ॥ २ ॥

मोक्षदः श्रीगदी-पद्मी शंखी विष्णुश्च चक्रधृक् ।

शंखचक्राब्जगदिनं मधुसूदनमानमे ॥ ३ ॥

भक्त्या त्रिविक्रमः पद्मगदी चक्री च शंख्यपि ।

शंख-चक्र-गदा पद्मी वामनः पातु मां सदा ॥ ४ ॥

गतिदः श्रीधरः पद्मी चक्र-शाङ्खी-च शंख्यपि ।

(V. 1. चक्री-गदाश्च शंख्यपि)

हृषीकेशो गदा-चक्री-पद्मी शंखी च पातु नः ॥ ५ ॥

वरदः पद्मनाभस्तु शंखाब्जादि गदाधरः ।

दामोदरः पद्म-शंख-गदा-चक्री नमामि कीम् ॥ ६ ॥

तेने गदी शंख-चक्री वासुदेवोऽब्जभृजगत ।

संकर्षणो गदी शंखी चक्री च पातु पद्मियः ॥ ७ ॥

गदी चक्री शंख-पद्मी प्रद्युम्नः पद्ममृत प्रभुः ।

अनिरुद्धश्चक्र-गदी शंखी पद्मी च पातु नः ॥ ८ ॥

सुरेशोश्चर्यब्ज शंखाद्यः श्रीगदी पुरुषोत्तमः ।

अधोक्षजः पद्मगदी शंखी चक्री च पातु वः ॥ ९ ॥

देवो नृसिंहश्चक्राब्ज-गदाशंखी नमामि तम् ।

अच्युतः श्रीगदी पद्मी चक्री शंखी च पातु वः ॥ १० ॥

बालरूपी शंखगदी उपेन्द्र चक्रपद्मयपि ।

जनार्दनः पद्मचक्री शंखधारी गदाधरः ॥ ११ ॥

शंखी पद्मी च चक्री च हरि कौमोदकीधरः ।

कृष्णः शंखी गदी पद्मी चक्री मे मुक्तिमुक्तिदः ॥ १२ ॥

see a four-armed image with these attributes we call it Viṣṇu and pass on.

Sculptural variety.

In reality, however, the matter is much more complicated than at first appears. Viṣṇu is but a general term for what in reality constitutes a considerable variety of different figures, to each of which a different name attaches. These varying names represent the Deity in his several divergent aspects, which are sculpturally differentiated each from each, according to the distribution of his attributes between his several hands.

All these twenty-four images are very much alike: they are all standing figures, with no bends in the body (are in *samabhaṅga* pose), possessing four arms and adorned with the *Kirita-mukuta* and other usual ornaments; each of them standing on a *padmāsana*. The difference between any two of such images has to be made out by the way in which the śaṅkha, the chakra, the gadā, and the padma are found distributed among their four hands.

Permutations of four objects in four hands.

It is worthy of note that the number of possible permutations of four things, taken four at a time is exactly twenty-four, and the order in which the permutations of these four articles among the four hands is to be observed, is passing, as in a circle from the lower right hand to the upper right hand, thence to the upper left hand and from there lastly to the lower left hand—in a clock-wise manner or as in the *pradakṣiṇā*. The word *pradakṣiṇam* at the end of the first verse, supplies the key for understanding the whole system.¹

Test for the 'Chaturvīmśati Viṣṇu-Murtayas'

The following table is based on the earliest text mentioning the *chaturvīmśati mūrtayas* the twenty-four varieties of Viṣṇu, viz. Agni Purāṇa, Adhyāya 48. Other descriptive lists appear in Padma Purāṇa, Adhyāya 78, and in the 'Chaturvarga Chiptāmaṇi' of Hemādri; (13th century A. D.); but they are neither correct nor complete. However the two texts of Maṇḍana on Iconography and Iconometry popular in

¹ Rūpamaṇḍana mentions these twenty-four varieties as मूर्ति-विशेषाः (Special forms), and enunciates the same order for identification :—

“ एताः सु मूर्तयो ज्ञेया दक्षिणाधः करक्रमात् । ”

—रूपमण्डन, अ० ३, श्लो० २२.

Western and Northern India (14th century)—the *Rūpamaṇḍana* and the *Devatā mūrtiprakāṇa* mention them almost correctly, probably owing to having Agnipurāṇa as their main source. Three variants, however, have crept in these texts.

Table of twenty-four forms.¹

[P = Padma. S = Śankha. C = Chakra. G. = Gadā.
S = Śaṅga.

Kṛṣṇa has padmā-Śankha-Chakra-Gadā i.e. PSCG]

1. Keśava	PSCG	13. Vāsudeva	GSCP
2. Nārāyaṇa	SPGC	14. Śaṅkarśaṇa	GSPC
3. Mādhava	GCSP	15. Pradyumṇa	GCSP
4. Govinda	CGPS	16. Aniruddha	CGSP
5. Viṣṇu	GPSC	17. Puruṣottama	CPSG
6. Madhusūdana	SCPG	18. Adhokśaja	PGSC
7. Trivikrama	PGCS	19. Nṛsimha	CPGS
8. Vāmana	SCGP	20. Acchyuta	GPCS
9. Śrīdhara	{ PCGS or PCSS	21. Upendra	SGCP
10. Hṛīśikeśa	GCPS	22. Janārdana	PCSG
11. Padmanābha	SPCG	23. Hari	SPCG
12. Dāmodara	SPCG	24. Kṛṣṇa	SGPC

Identical forms of Vāsudeva and Śaṅkarśaṇa.

The inscription at a village named Ghosūṇḍi in Udayapur State in Brāhmi characters of the 2nd century B. C. reads: "A stone enclosure of worship for Bhāgavats Śaṅkarśaṇa and Vāsudeva has been erected within the enclosure of Nārāyaṇa by the Bhāgavata Gajāyana, son of Pārāśari." The writer of the Memoir² on "Archæology and Vaiṣṇava Tradition" has taken great pains to explain away the different and rather an inverted order of the two forms of Viṣṇu, so well-known in the Chaturvyūha group, referred to in the above inscription. However, if we were to take the help

1 Variants according to the *Devatāmūrtiprakaraṇa* (DMP) and the *Rūpamaṇḍana* (RM.) are as under:—

- (1) *Madhusūdana* has CSPG in DMP.
for SCPG in Agni Purāṇa
- (2) Hari has SCPG in RM and DMP.
for SPCG in Agni Purāṇa
- (3) Pradyumna has SCGP in RM
and C S G P in DMP.
for G C S P in Agni Purāṇa.

2 Memoirs of the Arch. Survey of India, No. 5. by Rāmaprasāda Chandra (1920) pp. 163-164.

of the list of twenty-four forms of Viṣṇu, mentioned above and first traceable as early as the date of the Agni-purāṇa, we find that they show a change only in the objects taken in the two left hands, otherwise the two images are quite identical (Vāsudeva = GSCP; Saṅkarśaṇa = GSPC); and accordingly it is suggested they should have been better interpreted in the above manner.

Latitude to sculptors and local varieties.

The astounding thing about Indian Art that strikes even a casual student is the remarkable stability of its traditions throughout the course of centuries. Whether it be architecture, sculpture, painting or music the age-long traditions continue to exercise their dominating influence. The tradition in Hindu iconography is established and scrupulously guarded by the various compilations of the Śilpa Śāstra, the only latitude allowed being local varieties of the standard forms. The varieties obtainable in the images of Viṣṇu in Gujarāt introduced through this paper, are mainly due to this latitude.

Symbolism in Viṣṇu's attributes.

Indian architecture and sculpture, in a way, illustrate the background of philosophy, theology and religion that are still blended together in this country. Sculptures and pictorial representations of our various gods and goddesses are therefore not only without any significance, but are positively symbolical. The figure of Nārāyaṇa (Viṣṇu) represents the idea that he supports the creation made of the five gross elements. (पंचतत्त्व—पृथ्वी, आप, तेज, वायु, आकाश), himself being the Supreme Spirit. The four things, Śankha, chakra, gadā, padma—held in the four hands, respectively represent ether, wind, fire and water, the image itself representing the earth.¹ The emblems thus held by the

1 The Viṣṇudharmottara Purāṇa, Khanda III, Adhyāya 86, refers to this in the following dialogue:—

“वज्र उवाच ।

किं भयं तस्य देवस्य नित्यं सर्वायुधोद्यतः ।

यतस्तिष्ठति सर्वात्मा भयदा त्रिदिवौकसाम् ॥ १५ ॥

मार्कण्डेय उवाच ।

नैतान्यायुधजातानि परमार्थेन यादव ।

महीभूतान्यथैतानि हरिः धारयते प्रभुः ॥ १६ ॥

image of Vāsudeva are symbolic of his transcendental nature. According to some, Śankha is symbolical of eternal space, the chakra of eternal time, the gadā of eternal law and unfailing punishment consequent on its breach, and the padma, symbolising the ever-renewing Creation and its beauty and freshness. Two of the attributes of Viśṇu, namely the Mace and Discus are sometimes personified,—the former receiving a female and the latter a male shape.

Silpa-texts & Stereotype forms.

Whether the texts induced the different types of images or the types created the texts is difficult to ascertain. The former is however more probable in the case of Hindu gods and goddesses; for we find, that after a few centuries of remarkable growth and artistic spontaneity Hindu icons seem to be stultified and stereotyped through the disposition of the Śilpa-texts. This phase is marked by the appearance of a vast amount of Śilpa Śāstras starting with the Brihat Samhitā of Varāhamihira (4th century A. D.)

Decadence in Art.

Just as Hindu Kāvya (poetry) degenerated with the appearance of the formal Alamkāra literature (*Ars Poetica*) from Kāvyaadarśa to Sāhityadarpaṇa and Rasagangādhara, so the appearance of Śilparatna and Śilpasāra, Śilpasamgraha and Mānasāra, Aparājita Prichhā and Rūpamaṇḍana, signalised the stereotypization of Hindu iconography. It came to be more a matter of definition and faithful execution than of spontaneous creation, hence a lack of artistic urge in later copies of beautiful originals.

Abnormal in Indian Art.

To the average uninitiate of the Western public, Indian Art, especially the figures of such gods and goddesses like

खं विजानीहि देवस्य करे शंखो महाभुजः ।
चक्रं जानीहि पवनं गदां तेजस्तथा विधोः ॥ १७ ॥
आपः पद्मं विजानीहि पादमध्ये व्यवस्थितम् ।
महाभूतान्यथैतानि त्यक्तानि हरिणा नृप ॥ १८ ॥
क्षिप्रमेव विशीर्यन्ते तेन धारयते हरिः ।
विष्णुर्जीवः समाख्यात स्तेन त्यक्ताः शरीरगाः ॥ १९ ॥
भूतानि पश्य प्रत्यक्षं शीर्यमाणानि सर्वशः ।
भूतै देवभुतै लोको धार्यते यदुनन्दन ।
तेषां धारणशक्तिर्या सा, ज्ञेया विष्णुकारिता ॥ २० ॥”

Viṣṇu, Śiva, Trimūrti, Ardhanārīśvara, Kārtikeya or Durgā in their numerous poses and functionings with their activities and qualities symbolised as hands, heads, weapons and *mudrās* appear a little out of the common if not uncanny or monstrous and do not yield that satisfied feeling of intellectual repose which they derive by gazing at a figure of Apollo or Venus d'Medici, whereas in the case of an Indian, their importance as religious objects of heartfelt worship and devotion is intensified by this very fact of extra limbs and weapons, and serves to focus his mind better as a preliminary to his enraptured ideal of silent contemplation (*Samādhi*). The uncommon or the out of way images of Viṣṇu such as Vaikunṭha, Ananta, Trailoka-mohana and Viṣvarūpa are the instances in point, not to mention the twenty-four varieties of the four-armed Viṣṇu.

Viṣṇu images classified according to pose.

Coming to Viṣṇu images, when classified according to the pose they are either (i) standing or *Sthāna mūrti*, (ii) seated or *Āsana mūrti*, and (iii) reclining or *Sayana mūrti*. The present study is restricted to the description of the first two groups only, the section on Śesaśāyi being left out for a separate paper.

Laxmi-Nārāyaṇa.

The first group includes two-armed and four-armed images of Viṣṇu, sometimes accompanied by His consort Laxmi. Plate II. illustrates a dated marble image of Laxmi-Nārāyaṇa standing, having Laxmi to his left. It is dated Saṁvat 1310 (1264 A.D.) and is worshipped in a temple at Vijāpur, North Gujarāt in Gāekwār's territories. Plate III. gives Laxmi-Nārāyaṇa seated on Garuḍa, in black marble, which is the principal deity in a Vaiṣṇava temple at Vālam, a village seven miles off Vijāpur, dating not later than 14th century A.D.

The Two-armed Viṣṇu.

The two-armed figure of Viṣṇu has been called Loka-pāla Viṣṇu in Viṣṇudharmottara purāṇa (एकवक्त्रो द्विबाहुश्च गदा चक्रधरः ऋषुः ।) It has the posture of Śānti and holds gadā and chakra in the two hands. It has the symbol of Śrīvatsa on the chest and the kirita and the kundala on the head. The image of Śri Nāthajī at Nāthadwāra (Mewād) is two-armed. Earlier images of Viṣṇu with two hands are rarely to be found ; and no image has so far been traced by me.

Increase in hands—from two to twenty.

From the original form of two-armed Viśṇu developed many other images according mostly to the individual tastes and conception of the authors and sculptors or the donors of such images. When the worshipper thought that his god did not look powerful enough, he thought of him in terms of innumerable hands, and thus came into vogue the variety of forms of the same god Viśṇu. The twenty-four forms of four-armed Viśṇu, the six-armed Hari-hara-pitāmaha or Dattātreyā, the eight-armed Vaikunṭha, the ten-armed unnamed form, the twelve-armed Ananta, the fourteen-armed variety probably of Ananta (however unnamed in the texts), the sixteen-armed Trailokamohana and the twenty-armed Viśvarūpa, show the gradual growth in the complexity of the idea about the image of Viśṇu.¹

Published images of four-armed Viśṇu.

T. Gopināth Rāo has published six of the twenty-four forms of four-armed Viśṇu in his "Elements of Hindu Iconography", Vol. I, Part I. (1915). They are Keśava, Mādhava, Govinda, Madhusūdana, Hari and Śrī Kṛṣṇa—all of whom were fortunately found together in one temple—the Chennakeśava-Swāmi temple at Belūr in Mysore State. Pandit Bidyābinod published the images of Trivikrama, Janārdana, Adhokśaja and Śrīdhara from the collection of the Imperial Museum, Calcutta. ("Memoirs of the Arch., Survey of India" No. 2, 1920) in his memoir on "Varieties of Viśṇu Images". All the Viśṇu images illustrated in the "Iconography of Sculptures in the Dacca Museum" (1929) by N. K. Bhaṭṭaśāli are, it is curious to note, of the Trivikrama type (Padma, Gadā, Chakra, Śankha). It appears that the Trivikrama form—quite reminiscent of Sun—Viśṇu, who traverses the three worlds in three steps, is most popular among Hindus.² It is desired through this paper to illustrate such and other forms of Viśṇu, obtained for the main part in Western India.

Four-armed varieties from Gujarat.

The image of Dāmodara (Plate IV) holding padma,

1 Mahāmahopādhyāya Gaurīśankar Ozā refers to the conception of Viśṇu images with hands ranging from 14 to 24 in his Hindi "Lectures on Mediaeval Hindu Culture" (Hindustani Academy, Allahabad, 1928) on P. 20; however no text in its support is quoted by him.

2 Dr. H. D. Sānkaliā has published in Bom. Univ. Journal, Vol. VII, Part IV, January 1939, three varieties of Viśṇu-Puruṣottama, Adhokśaja and Janārdana—all the three carved in one panel—from Taibpur a village near Kapadvanj in Kairā District, (Central Gujarāt) now in the Prince of Wales Museum, Bombay.

śankha, gadā and chakra respectively is a fine piece of mediæval Gujarāt sculpture. It is worshipped in a temple at Vijāpur (Baroda State territories).

Dāmodara : Hṛīśikeśa:

Image of Hṛīśikeśa (Plate V) with the name inscribed on the pedestal, with priṣṭha mātṛā, lies in the ruins of Kotyārka temple on the banks of Sābarmati in the Mahuḍi village, seven miles off Vijāpur. It is a very fine and beautiful piece of sculpture in greenish sandstone. All the four hands having been broken, we have to rely on the inscription for its identification. The formula. Gadā, Chakra, Padma, Śaṅkha (GCPS) is very probably applicable as the broken chakra can be seen in the upper right hand.

The outskirts of this place are inhabited by Bhils and other jungle-tribes. In the texts given in the Rūpamaṇḍana and the Devatāmūrti prakaraṇa showing the suitability of particular forms of Viṣṇu for particular castes, we find that God Hṛīśikeśa is the bestower of happiness to Bhils, potters, washermen etc.¹ This fact also supports the identification of this broken image as being that of Hṛīśikeśa.

Vāsudeva or Keśava.

The images with Śaṅkha in the upper right hand and chakra in the upper left hand be either Vāsudeva or Keśava. This image (Plate VI) of white marble is found on the wall adjoining the bridge near Saraswati river, Pātaṇ; and presents a dubious variety of the twenty-four forms.

Miniature Viṣṇu—figure on the Head.

The noteworthy feature of this icon is a miniature-figure of Viṣṇu on the top of the principal deity, and this shows the Vaiṣṇava origin of the deity. This suggests the influence of the Buddhist idea of the parental Dhyāni Buddha being placed at the top of the main deity, showing the origin of the deity or family to which the deity originally belonged. Thus in Buddhist images the miniature-figures of Akśobhya, Amitābha, Ratnasambhava, Amoghasiddhi and Vairocana on the crown show that the main deity is an emanation of one or the other of the Dhyāni Buddhas and belongs to his family. We shall note this fact again later on while describing the sixteen-armed image of Trailoka-mohana.

¹ “मेद म्लिङ्ग किरातानां हृषीकेशः सुखप्रदः ।
कुम्भकार वणिग्वेद्या चक्रिक च्चजिनामपि ॥”

Trivikrama or Upendra.

Trivikrama and Upendra are the two forms of Viṣṇu, whose upper right and upper left hand respectively hold Gadā and chakra. Plates VII and VIII illustrate exquisite but mutilated images of Viṣṇu in this form. The former is in the collection of the Baroda Museum; the latter an earlier piece is from the Dr. Pandyā Abhyāsagriha, collection, Pāṭaṇ. (N. Guj.)

Beautiful yet mutilated Viṣṇu images.

The standing image of Viṣṇu (Plates VII, VIII) is one of the most beautiful sculptures in round that have been seen in this part of India. In spite of the mutilation of the arms and the feet, whatever remains is singularly beautiful. The magnificent repose of the face, the beautiful modelling of the figure, the elaboration of the ornaments, the prabhāmaṇḍala and the kirīṭa and every other detail fits in with conception of the divine guardian of the universe. The eyes are half-closed and the facial expression is one of intense contemplation. The superb poise of the head, bold shoulders, the slim round body, the lion-like waist, the jewelled crown, the rich ear-rings, necklaces and the gorgeous girdle—all combine to make a wonderfully harmonious and beautiful representation of Viṣṇu.

Aesthetic value of these images.

The manly vigour of these images is tempered by an extraordinary fascination of serene loveliness which the sculptors of the best period of Mediæval Indian Sculpture had succeeded in producing. The divinely mysterious smile that lights up the countenance of these images beams forth through the medium of stone, either sandstone or marble—and affords an unending source of joy for the worshippers of the beautiful and the sublime—which bear ample testimony to the art of the sculptors, who were not without a fine sense of the beautiful.

Forms of Viṣṇu not identified.

Over and above the regular forms arrived at by the permutations of the four objects in Viṣṇu's hands, we come across sculptures, the identification of which baffles us. Over and above the fact that Padma is replaced by Akṣamālā (rosary) in these images, they afford other points of note also.

Viṣṇu with the varada mudra and rosary.

The image in Plate IX carries in the two right hands the

traced by me ; whereas specimens of ten and fourteen-armed images are not so rare.

Dhyāna of Vaikunṭha.

The description of Vaikunṭha in the Rūpamaṇḍana is as under :—“Vaikunṭha I shall now describe, who is eight-armed and very powerful, rides on Garuḍa and is four-faced and should be made by those who desire peace. In the four right hands should be placed the gadā, sword, arrow and chakra ; and in the four left hands, the śankha, kheṭa (stick), bow and lotus.”¹

Actual sculptures of 8 armed Viśṇu.

In the actual sculptures of Vaikunṭha, however, that are met with, some change either in the order of the hands or in the nature of objects held by them is found. In Plate XII, the fourth lower right hand holds śankha instead of chakra, as in the text, with a similar change of chakra in place of śankha. The two faces on two sides of the face are not quite visible in the photograph, though they do exist. Viśṇu is seated on Garuḍa.

Living tradition of Sculpture in Gujarat.

That the technique of sculpture in Western India, as found enunciated in the śilpa texts of Sūtradhāra Maṇḍana was a living art and the tradition was handed down to posterity even upto the beginning of the 19th century as a guide to actual execution is corroborated by the find of an omnibus volume of Mss. from the Ms. collection of Śrī Dāhilaxmi Pustakālaya, Nadiād.² The volume contains Gujarāṭi prose-renderings of the Rupamaṇḍana, Rūpāvatāra, Devatāmūrti—prakaraṇa, Vāstusāra and Vāshimanjari, with original Sanskrit texts of some of them : The following relevant extract is given to convey an idea as to the nature of these “Notes meant for guidance in actual sculptures :—

- 1 “ वैकुण्ठच प्रवक्ष्यामि सोऽष्टबाहुर्महाबलः ।
ताक्ष्यासनश्चतुर्थःश्च कर्तव्यः शान्तिमिच्छता ॥
गदा खड्ग शरं चक्रं दक्षिणे च चतुष्टयम् ।
शंखं खेटं धनुं पद्मं वामे दद्याच्चतुष्टयम् ॥ ”

—रूपमण्डने अ० ३, श्लोक ५२, ५३.

- 2 My thanks are due to Sjt. Popatlāl J. Yājñik, B.A., The President of the Pustakālaya, for making it convenient for me to inspect the Ms.

“वैकुण्ठमूर्तिः। गरुडासन करवा। अष्ट बाहु करवी। गदा खड्ग बाण चक्र जिमणी हाथि करवा। आगलि जिमणी पुरुषाकार नृसिंह करवा। बीजी पासा श्रीभूषा करवी।.....”

“कृष्णशंकर मूर्तिः। कृष्ण शंकर एक अंग करवा। दक्षिणांगे रुद्र वामांगे कृष्ण। दक्षिणे जटाभार। वामे मुकुट। दक्षिणे कुंडल। वामे मकरकुंडल। दक्षिणे अक्षमाला त्रिशूल। वामे शंख चक्र करवा।”

Vaikunṭha images noticed earlier.

Another figure of Vaikunṭha from Gujarāt described by Dr. B. Bhaṭṭāchārya in his paper on “Eight Mediæval Hindu images in the collection of Prince Pratāpsimha Mahārāja Gāekwād” (Indian Culture, Vol. I, No. 3, 1934) has been noted to have two changes in the symbols held in the hands: noose instead of arrows and ankuṣa in place of bow.

Vaikunṭhanāth from Bādāmi illustrated on Plate LXXV in “Elements of Hindu Iconography” Vol. I, Part I, by T. Gopināth Rāo, is a standing figure and has very little claim to elegance or serenity of expression. Could it really be Vaikunṭha?

Actual Sculptures of 10-armed Viṣṇu.

Goddess Pārvati is commonly known as *daśa-bhujā*, purporting to hold sway over the ten directions. Similarly a kindred variety of Viṣṇu with 10 hands appears to have been conceived by sculptors and donors; and two specimens are located in the collection of the Prince of Wales Museum, Bombay, having been acquired from Taib-pur, a village near Kapaḍvanj in Kairā Dist., (Central Gujarāt).

The two sculptures illustrated here¹ (Plates XIII & XIV) are almost identical in style, although there is a remarkable variety in the execution of the mukuta. The size of the image, which forms a part of a long panel is about 2 feet. They appear to belong to a period not later than the 14th century.

In this form, two front hands are in Yogamudrā, as in the case of 12-handed, 16-handed and 20-handed icons. Addition of two hands in Yoga-mudrā is the connecting link between the Vaikunṭha-variety on one hand and the Ananta, Trailoka-mohana and Viśvarūpa on the other. Of the rest,

¹ These photographs are due to the courtesy of Sjt. G. V. Achārya and Sjt. R. G. Gyāni, both of the Prince of Wales Museum, Archæological Section, Bombay.

They were first published along with the whole panel in a miniature form, by Dr. H. D. Sānkliā in Bom. Univ. Journal, for January 1939.

the four hands on the right, beginning with the lower right are respectively in varada-mudrā, holding sword and wheel, and in abhaya-mudrā; those on the left have respectively a kamandalu, a citron, gadā and abhayamudrā. It appears to be a development of Vaikunṭha-form, as we find a similar development of Ananta in 14-armed specimens.

Dhyāna of Ananta.

Ananta has several forms and is conceived to be endowed with almost all the divine powers (*Śaktis*). "The image of this deity should have twelve hands and four faces, and should be seated on Garuḍa. One of the right hands should be in the varada pose, and the remaining five should carry the gadā, the khadga, the chakra, the vajra and the ankuśa; in the left hands should be held the śankha, the khetaka, the dhanuś, the padma, the danda and the pāśa."¹

No Specimen of 12-armed Viśṇu.

In spite of the injunction of the text for designing twelve hands for Ananta-mūrti, not a single specimen has so far come to my notice. We have instead an addition of two hands, one on each side in this type of image, with profuse variation in the order of the objects and the side of the hands holding them. Maybe the protector of the 14 worlds (*loka*) might have been conceived to have an equal number of hands!

Actual Sculptures of 14-armed Viśṇu.

Plate XV is a very beautiful piece of Gujarāṭi sculpture found from the valley formed at the confluence of Sābarmati with Hāthmati in north-east Gujarāt. It is now lying in a niche in the newly built temple of Koṭyārka in Khadāt-Mahuḍi village in Vijāpur Tālukā². The serenity of the face and the exquisite workmanship of the sculptor compels admiration for his skill. It has two other faces on either side, the

1 "अनन्तो ऽनन्तरूपस्तु हस्तैर्द्वादशभिर्युतः ।
अनन्तशक्तिसंवीतो गरुडस्थश्चतुर्मुखः ॥
दक्षिणे तु गदा खड्गौ चक्रं वज्राङ्कुशौ शरः ।
शंखः खेटं धनुः पद्मं दण्डपाशौ च वामतः ॥

—रूपमण्डने अ० ३, श्लोक ५८, ५९.

2 This and the other image of Viśvarūpa, to be noticed later on, were first brought to public notice by my friend Sjt. Raviśankar Rāval, Principal, Gujarāt Kalā-saṅgha, Ahmedabad, in an article on "Koṭyārka" in "Kumār", Monthly (Gujarāṭi) in 1928.

fourth being imagined at the back. Viṣṇu is seated at ease on Garuḍa, who is represented in human form.

Plate XVI gives another specimen of a 14-armed Viṣṇu, with almost identical objects and symbols. The three facedness of the image is visible from the photograph.

Stylistic differences, and the quality of Art.

Even though this image is identical to the one described above, its æsthetic value and the quality of art and craftsmanship differ a great deal. The second specimen is a formal execution of the sculptor, without any emotions. Even though it is actually in worship in a temple in Pātaṇ (N. Guj.) there is no expression on the face, and the whole execution is a tame affair. This suggests how the decadence in sculptural art had affected the level of craftsmanship, and thus given rise to stylistic differences in two works, representing the same idea. The history of miniature-painting in Gujarāt affords a parallel to the art of sculpture in this respect.¹

14-armed variety of Viṣṇu.

The 14-armed image of Viṣṇu, one is inclined to believe, is a very popular variety of the Ananta form, which however has not been described in any text on Iconography, uptil now. One conventional image of a 14-armed Viṣṇu from Ajmer Museum had been published by Mahāmahopadhyāya Gauriśankar Ozā (Lectures on "Mediæval Hindu culture" 1929). The progress from twelve hands to fourteen has a precedent in the 10-armed variety discussed above.

The third specimen from Sanḍera, (Plate XVII) a village in Siddhapur Tālukā, Barodā State territory is a beautiful piece of sculpture. The small figure of Viṣṇu on the top is remarkable, assigning the image positively to the Vaiṣṇava group. Viṣṇu is seating at ease on Garuḍa, with the left leg bent.

Dhyāna of Trailokamohana.

"The figure of Trailoka-mohana has double the number of hands Vaikunṭhanāth has i. e. sixteen. In six of the right hands are to be placed respectively the gadā, the cakra, the ankuśa, the bāṇa, the śakti and the cakṛa (?); the seventh right hand is to be in the *varada* pose; in seven of the left hands should be placed similarly the mudgara, the pāśa, the dhanuś, the śankha, the padma, the kamaṇḍalu and śringa (a horn): the

¹ Cf. Prof. W. N. Brown's article on "Stylistic varieties of Early Western Indian miniature-painting, about 1400 A. D." in "Journal of the Indian Society of Oriental Art"—Calcutta, for 1937; Vol. V.

remaining right hand and left hand are to be held in the yoga-mudrā pose.”¹

Actual Sculptures of 16-Armed Viśṇu.

The two varieties of Trailokamohana very well illustrate the dhyāna given in the text, with a few variations. Plate XVIII is from the Viśṇu temple at Vālam, Vijāpura Tālukā (N. Guj.). It has three visible faces, the front looking like that of Nṛsiṃha. Some of the hands are broken. It is riding on Garuḍa as distinguished from the sitting at-ease posture in the 14-armed variety discussed above.

The other specimens of the same Trailoka-mohana variety (Plate XIX) is from Sanḍera village, Siddhapur Tālukā. It was illustrated in my paper on “Gujarāti or the Western School of Mediaeval Indian Sculpture”, in the *Indian Historical Quarterly* for September 1938. It is again reproduced by Dr. Sānkaliā.² It has a miniature-figure of Viśṇu on the top.

Dhyāna of Viśvarūpa.

The image of Viśvarūpa is remarkable for its iconographic peculiarities and its rarity. “It is four-faced and is endowed with twenty hands. He shows the patākāmudrā, plough-share, śankha, vajra, ankuśa, arrow, chakra, citron and the varadamudrā. In the left hands are shown the patākā (flag), danda, pāśa, gadā, sword, lotus, horn, mūsala and rosary. Two other hands show the yogamudrā.”³

1 —“ अत्र त्रैलोकमोहनः ।

स षोडशभुजस्तार्क्ष्यारूढः प्रागवचतुर्मुखैः ॥

गदाचक्राङ्कुशौ बाणं शक्तिश्चक्रं वरः क्रमात् ।

दक्षेष्टु मुद्गरः पाशः शार्ङ्गशंखाब्ज कुण्डिकाः ॥

शृङ्गी वामेष्टु हस्तेष्टु योगमुद्रा करद्वयम् ।

नरश्च नारसिंहश्च शूकरं कपिलाननम् ॥ ”

—रूपमण्डने अ० ३, श्लो० ६० दु ६१, ६२.

2 Dr. Sānkaliā describes this image as “either Trailoka-mohana or Viśvarūpa”. There is no room for such a doubt, however.

3 “वींशत्या हस्तैर्युक्तो विश्वरूपश्चतुर्मुखः ।

पताका हलशंखौ च वज्राङ्कुश शरास्तथा ॥

चक्रश्च बीजपूरश्च वरो दक्षिणबाहुषु ।

पताका दण्डपाशौ च गदाशष्टोत्पलानि च ॥

शृङ्गी मूशलमक्षश्च क्रमात् स्थुर्वाम बाहुषु ।

हस्तद्वयं योगमुद्रा वैनतेयोपरि स्थितः ॥

क्रमान्नर-नृसिंह-स्त्री-वराह-मुखवन्मुखः । ”

—रूपमण्डने अ० ३, श्लो० ५५, ५६, ५७.

Actual Sculptures of 20-Armed Viṣṇu.

Out of the three specimens given here to illustrate the Viṣvarūpa form of Viṣṇu, (Plate XX) is now at the temple of Kotyārka, newly built in Khadāta-Mahuḍi village, Vijapur Tālukā. It has three faces: and the position of the objects answers well the description quoted above.

The second specimen (Plate XI) is from Bālārām, 7 miles off Pālaṇpur, two of whose principal hands holding yoga-mudrā are broken. The remarkable thing about this image is the third face to the left, which has a similarity to the face of man-lion.

Third specimen (Plate XXII) is the image worshipped in the Nārāyaṇji temple at Pātaṇ, the awkward new enamel eyes, moustaches and the *tilaka* are easily marked out from the genuine workmanship in marble. The seated image is about 3.5 feet high.

Iconographic peculiarities.

The Viṣvarūpa image of Viṣṇu is remarkable for its iconographic peculiarities and its rarity in Indian sculpture. These images are made of marble which admits of fine workmanship; and hence occasional varieties in the position of objects in the various hands are met with. These iconographic peculiarities are the result of the stone material used by the sculptor who fashions the objects according to his convenience.

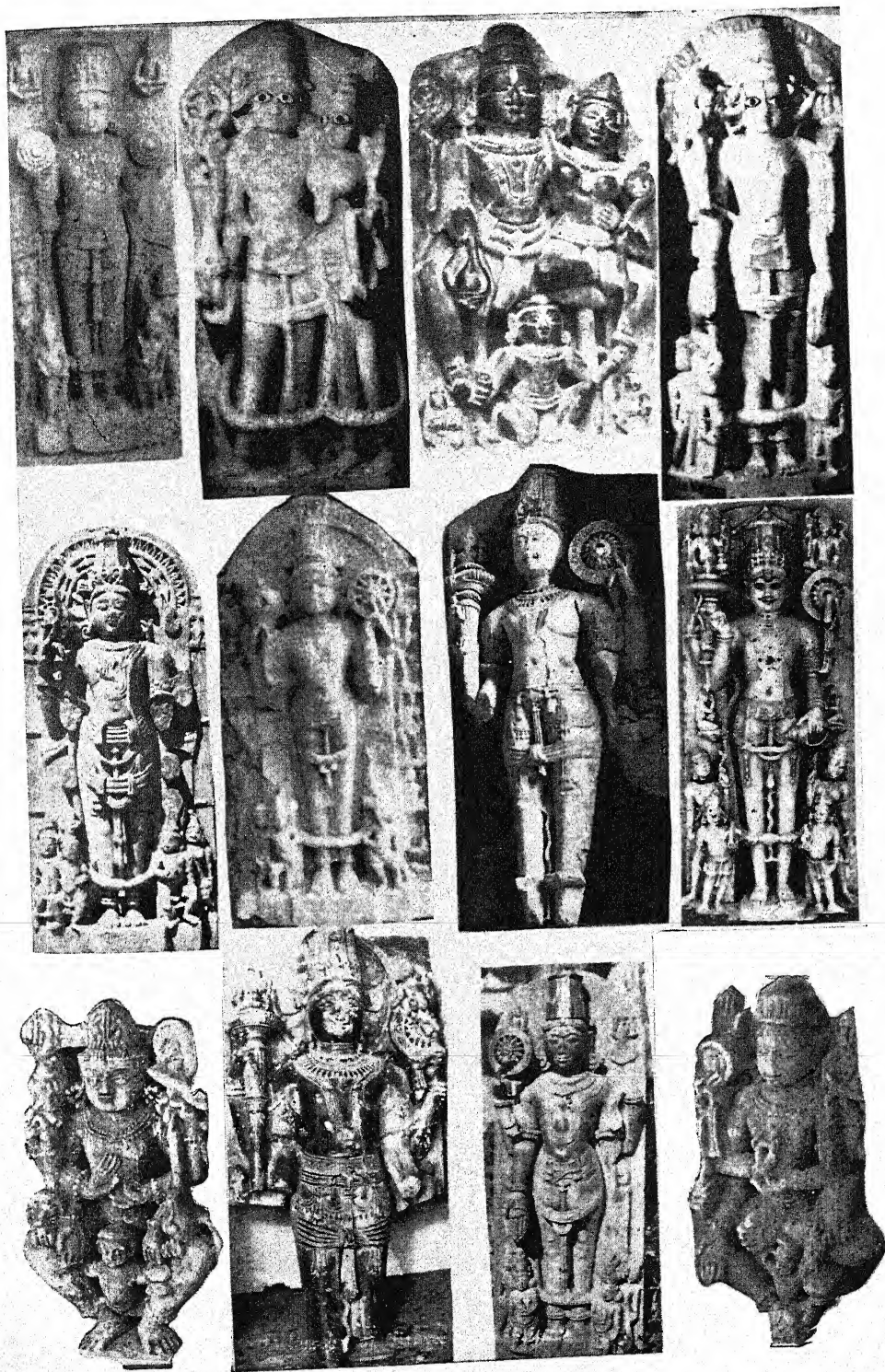
One such image is described by Dr. Bhaṭṭācārya in his paper, referred to above. The Viṣvarūpa image reminds us of the Viṣvarūpa-darśana given by lord Kṛiṣṇa to Arjuna. It may be that this form might have had its suggestion from such references to the All-mighty Viṣṇu.

Viṣṇu images with four faces.

Two types of Viṣṇu images according to the number of faces have been noticed. First type is a one-headed smiling figure with either two or four or even twenty arms. The second type represents him as having four faces as in the special forms of Viṣṇu: viz. Vaikunṭha, Ananta, Trailoka-mohana and Viṣvarūpa. These are faces of a man, a manlion, a woman and a boar. (See Plates XV to XXII).

Artistic peculiarities of Gujarāti Sculpture.

The artistic peculiarities of Gujarāti sculptures bear a close resemblance to the specimens of Bengālī and Orissian sculpture. The delicate ornamentation, artistic expression, boldness of outline, definiteness of detail, and the pleasing



Images of Vishnu from Gujarat.



effect produced on the mind of every onlooker make the images of this mediaeval period the product of the best days of Hindu art, particularly in Gujarāt. From the Viśṇu images introduced through this paper, one will be able to see for himself that they are beautifully and yet delicately ornamented; and the expression of the face is natural, serene and peaceful (*saumya*). The form of the body, the garments, the various objects, symbols; and ornaments are found depicted faithfully according to the texts; yet the hand of the artist is always there.

Times fostering Fine Arts.

This was possible because Gujarāt enjoyed political tranquillity in the reign of the Solanki Kings—Mūlarāja, Bhīmadeva Siddharāja, Kumārpāla, and some Kings of the Vāghelā branch, though occasionally it was disturbed by the inroads of Muslim iconoclasts. Accordingly art, literature, trade, etc., could flourish well in the province. On casting a glance at the contemporary currents of Mediaeval Art in India, we find, that its best period ranged from the 9th century onwards to the 13th century, before the general conquest of the various provinces by the Mahomedans, when the Hindu artistic talent got a set back and soon degenerated into a decadent art. This is the same period when the Pāla and Sena schools of art flourished in Bengal and the Utkala and Kalinga schools of art in Orissā.

Gujarāti phase of Mediaeval Indian Sculpture.

Gujarāt is a rich mine of archaeological remains; and deserves, therefore, to be studied as an art-province which has a dialect of its own, although it is not unrelated to that of the contemporary currents in the other branches of the so-called "Western School of Sculpture." From the beautiful specimens of sculpture that are coming to light¹ one is led to believe that Gujarāt of the palmiest days of rule by the Solankis and the Vāghelās—say from the 10th century to the end of the 13th and a few centuries later,—had fostered the growth of a remarkable provincial school of sculpture.

Varieties of Hindu Iconography in Rūpamaṇḍana worth a study.

The text of "Rūpamaṇḍana" by Sūtradhāra Maṇḍana records many varieties of Brahmanical images—such as those

1 Beautiful images of 14-armed Viśṇu, Sarasvatī, Gaṇeśa and other Brahmanical gods were recently (May 1939) dug out while constructing the new Sardār Vallabhbhai Bridge over Sābarmatī in Ahmedabad. They are believed to be of the days of Karna Solanki, who founded Karnaṇvatī in the 11th century A. D.

of Viśṇu, Gauri, Hari Hara and others; and they deserve to be studied thoroughly with the help of actual images that are very likely to be met with scattered over Western India, which ranges from Mt. Abu in the north to the Elephantā Caves, covering the broad tract of river valleys—those of Sarasvati, Sābarmati, Mahī, Narmadā and Tāpti which fostered civilization and culture of the mediæval Hindu India.

Illustrations exclusively from North Gujarāt

It may be remarked however that all the specimens illustrated in this study are exclusively from North Gujarāt. Extensive tours, therefore, in ancient sites over the whole of Gujarāt, Kāthiāwāḍ and Cutch are bound to furnish numerous finds, rich in artistic value as well.

Acknowledgment.

I am indebted to the University of Bombay, whose sympathy and financial help have enabled me to undertake a preliminary study of some of the Hindu Sculptures in Gujarāt.

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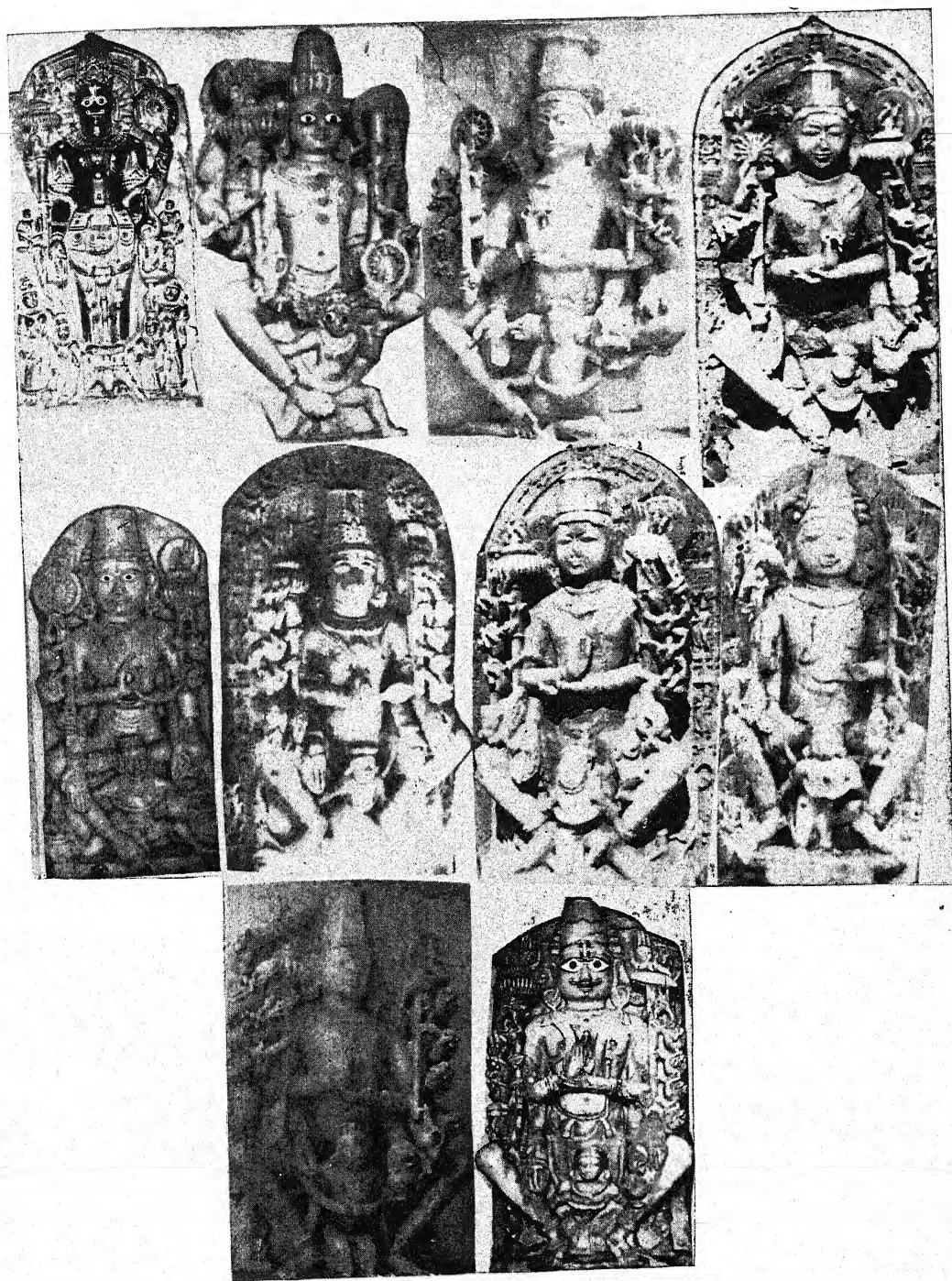
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- 2 Viśṇu Purāṇa.
- 3 Agni Purāṇa
- 4 Brihat Samhitā.
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Images of Vishnu from Gujarat

BUDDHIST INFLUENCE IN GUJARAT AND KĀTHIĀWĀD

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The study of the prevalence of Buddhism in this province of Gujarāt, whose sister faith, i.e., Jainism, has had such a dominating sway over the religious phase of the life of the Gujarātis, has not received sufficient attention. Its cause is mainly to be found in the paucity of material, monumental, documentary or scriptural, which confronts students of Buddhism. That Buddhism flourished in this province as elsewhere in India side by side with Hinduism ever since the days of Aśoka—and we need not be surprised if earlier traces are found—is too well-known a fact to need demonstration. Unfortunately very few structural remains have come to light and most of our evidence has to be based on literary sources. It is proposed to give here a brief outline of the available traces of Buddhism and describe some new Buddhist relics which have been brought to light by the Baroda Archæological Department, with a hope that it may stimulate scholars here to study the subject and collect more evidence of Buddhist relics.

The earliest Buddhist monument on this side of India so far known is the famous Aśokan Rock at Girnār near Junāgaḍh in Kāthiāwāḍ. Besides the Aśokan Edicts engraved on the boulder we get the inscriptions of Rudradāman and Skandagupta engraved on it. The former¹ speaks of Aśoka's Yavana Governor Tushāspā, who supervised the construction of the Sudarśana lake at the foot of the hill. There are grounds to believe that Buddhism had penetrated into Saurāshṭra or Kāthiāwāḍ even before Aśoka's time. While speaking about Fa-la-pi or Valabhī, Hieun Tsang² remarks "When Tathagata lived in the world, he often travelled through this country. Hence Aśokarāja raised monuments or built *Stūpas* in all the places where Buddha rested". The tradition recorded by the famous

1. *Epigraphia Indica*, VIII. 46-47.

2. *Sī-Yu-Ki*, Beal ii-267.

Chinese traveller seems to have been based on facts. For a long period after this we get a lacuna. From the Jātakas or Buddhist Birth-Stories we learn that Bhṛigukachchha¹ (modern Broach) and Suppāraka (modern Sopara)² situated on the sea-board of Gujarāt played a prominent part as emporiums. According to Periplus,³ the coins of Appollodotus and Menander were found circulated in Broach (1st cen. A.D.). The latter is the most celebrated of Yavana kings. He is Milinda, king of Sākala, who plays a leading part in the *Milinda-panha*, a Buddhist philosophic treatise in the form of a dialogue between the king and the sage Nāgasena who converted the king to Buddhism. His coins are found in great numbers there.

It cannot be said with certainty what the religion of the Western Kshatrapas was. Foreign tribes like the Śakas always assimilated themselves with the Indians and espoused either Hinduism or Buddhism. The Kshatrapas very probably were Buddhists like their over-lords the Kushānas, Kanishka for example. The symbols on their coins, especially the *Chaitya* symbol, may support this hypothesis. It also appears that Jainism flourished under the Western Kshatrapas as is evident from some stone inscriptions incised during their reign. Two⁴ such records, for example, of the reign of Rudradāman, found in Andhau in Cutch, mention Rishabhadeva, a Jaina pontiff, and the Junāgaḍh inscription⁵ of the time of the grandson of the Kshatrapa Jayadāman contains a veiled reference to Jainism in the expression '*Kevali-jñāna*' etc. This does not mean that the Kshatrapas were Jains but that Jainism flourished under them. This is the earliest epigraphical reference to Jainism in Kāthiāwād. But one thing appears certain that Buddhism was more powerful of the two in the earlier centuries of the Christian era and that the gradual fall of the former paved the way of the latter to the eminence it reached during the medieval period.

The old Buddhist monuments in this province, which chronologically came after the Aśokan rock at Gīrnār, are the various Buddhist caves in the mountains of Kāthiāwād, constructed in the early centuries of the Christian era. These are

1. *Jataka*, III, 188.
2. *Indian Antiquary*, XVI. pp. 1, 49 ff.
3. *Bombay Gazetteer*, Vol. I, pt. 1, pp. 17-18.
4. *Epigraphia Indica* XVI, 23.
5. *Ibid*, p. 239.

situated at Junāgaḍh, Talājā, Sānā, Dhāṅk and Sidhsar. Some of these caves, e.g. one of the caves near Bāwā Pyārā's Maṭh near Junāgaḍh and some caves near Dhāṅk,¹ are considered to be Jaina. The probability is that they were originally designed for Buddhist monks and devoted to the Jainas after they had ceased to be used by the Buddhists. All these caves are more than hundred in number and of plain workmanship. If the suggestion of the Bombay Gazetteer² is acceptable, some of these caves may represent the monasteries constructed by various Valabhī kings and in that case some may belong to the 7th or 8th cen. A.D. also. This view is strengthened by the fact that no traces of these *Vihāras* are left near modern Valā which represents ancient Valabhī. The Bahadurkhan Museum at Junāgaḍh contains Buddhist relics excavated from the Boria *Stūpa* in the State.

After the Kshatrapas some of the Maitraka rulers of Valabhī play a prominent part as patrons of Buddhism. Valabhī is identified with modern Vala near Bhavanagar in Kāthiāwāḍ. No structural monuments of the Valabhī rulers are available, but we have been lucky in securing more than 100 copperplate grants of them, in about 25 of which records of gifts to various Buddhist *Vihāras* are made. The Maitrakas were staunch Śaivas though they were tolerant towards others faiths. According to the *Mañjuśrī Mūlakalpa*³ (V. 587a) Śilāditya I. (cir. 610 A.D.) was a Buddhist ruler. (शीलदित्यो नाम नृपति बुद्धनां शसने रतः ।). In his own grants Śilāditya called himself *Paramamāheśvara* 'a devout worshipper of Śiva' and the claim of the *Mañjuśrī-Mūlakalpa* cannot be accepted. Possibly the Buddhists looked upon him as of their religion on account of his constructing monasteries and his gifts towards them. Ladies of the royal household, like Duḍḍā and Mimmā, had become Buddhist nuns. The *Vihāra* of Duḍḍā appears to have been the biggest and included smaller *Vihāras* in its precincts. Besides this *Vihāra* mention is made of the *Vihāras* of Āchārya Bhadanta Buddhādāsa, Mimmā, Āchārya Bhadanta Sthiramati, Gohaka, Divirapati Skandabhāṭa Bhikshu Vimalagupta, Pūrṇabhaddā, Yakshaśūrā and Śilāditya. All these were not Buddhists, e.g. Skandabhāṭa, but tolerant

1. *Journal of the Royal Asiatic Society of Great Britain and Ireland.*
2. *Bombay Gazetteer*, Vol. VIII, p. 435.
3. *The Imperial History of India*, Jayaswal, p. 24, (p. 43 of the Sanskrit text).

Hindus who constructed *Vihāras* for Buddhist monks and nuns. Sthiramati was one of the disciples of Vasubandhu, who wrote commentaries on the works of his master. He founded the *Vihāra* of Śrī-Bappapāda at Valabhī and Hieun Tsang corroborates this.¹ Endowments were made to these *Vihāras* by various Valabhī rulers in order to defray the charges of repairs ; of boarding, lodging, and clothing of the monks ; and of the materials of worship. In one place we are told that a part of the income was to be spent on copying Buddhist scriptures for the liberty of the monastery². Druvasena II. alias Bālāditya, of Valabhī was married to a daughter of Harsha. Hieun Tsang tells that this Dhruvasena accompanied Harsha on many of his expeditions and was present at his great alms-giving ceremony at Prayāga. His son Dharasena IV succeeded to Harsha's empire,³ and he is the only Valabhī ruler who is styled *Chakravartin*.⁴ Hieun Tsang (in 639 A.D.) has spoken of Valabhī in eulogistic terms. He says⁵ "—In the country of Valabhī are several hundred monasteries or Saṅghārāmas with about 6,000 monks. Most of them study the Hīnayāna according to the Sammatīya school. There are several hundred temples of Devas and Sectaries of many sorts—". Valabhī was a seat of Buddhist learning which produced scholars like Sthiramati and Guṇmati and It-sing found⁶ that it vied with Nālandā in that respect. Hieun Tsang⁷ found that Buddhism had taken root and prospered in other parts of the modern greater Gujarāt, e.g. in Cutch, Surāshṭra, Gurjara, Ānandapura (modern Vāḍnagar). This will show that side by side with Brāhmanism (and Jainism) Buddhism played an important role in the life of the people of this province upto the 7th cen. A.D.

The same state was observed by the merchant Suleman⁸ (851 A.D.), a little more than 210 years after Hieun Tsang. He describes Jurz or Gujarāt as bordering on the kingdom of Balhara. He found that the chief religion in Gujarāt was Buddhism and notices that the principles of the religion of

1. *Si-Yu-ki*, Beal ii. 268.
2. *Indian Antiquary*, September, 1925, p. 39.
3. *Mañjuśrī-Mūlakalpa*, p. 63 (vv. 846-847). (*Imperial History of India*, p. 67).
4. See his grants, e.g. *Ind. Ant.* I. 15 and the grants of his successors.
5. *Si-Yu-ki*, Beal ii. pp. 266-267.
6. It-Sing. *A Record of Buddhist Religion*, p. 177 (translated by J. Takakusu. 1896).
7. *Si-yu-ki*, ii. 259-260, 266-270.
8. *Bombay Gazetteer*, Vol. I, pt. 1, p. 505.

China were brought from India and that the Chinese ascribe to the Indian the introduction of Buddha into their country. Al-Idrisi¹ (end of the 11th cen. A.D.) says that the inhabitants of Kambaya were Buddhist and that the Balhara also worshipped the idol of Buddha. The last author may have mistaken Jainism for Buddhism for by his time Buddhism had lost ground here as elsewhere. The 8th or 9th century A.D. witnessed the downfall of Buddhism and the consequent rise of Jainism.

I have so far given a brief outline of Buddhist traces left to us in the form of monuments and in literature. Now I shall describe in detail the Buddhist relics brought to light by the Baroda Archæological Department.

The Mahuḍī Images.

In a village called Mahuḍī in the Vijapur Taluka of the Mehsana District of Baroda four bronze images were unearthed a few years ago in the compound of the old Koṭyarka temple which is situated on the top of a hill on the right bank of the Sabaramati. Of these, three small images are in the custody of the State Archæological Department and the fourth inscribed image is fixed in a cement platform in the temple itself by its *Pujari* who makes a living on it by collecting the money offered to it by the devout Jainas who are told that it is of Rishabhadeva, one of their *Tīrthaṅkaras*. And in fact to laymen the images do appear to be Jaina by their great resemblance to the known marble images of the *Tīrthaṅkaras*. Dr. Hirānanda Sastri has after a very mature deliberation come to the conclusion that they are representations of the Buddha himself. He has very carefully marshalled arguments in support of his contention, and for his masterly exposition of the subject readers will do well to consult the Annual Report of the Archæological Department, Baroda, for the year 1937-38. The images have been illustrated there for the benefit of the students of Indian Iconography. The biggest image has on its *prabhāvali* an inscription, one line of which is partially readable. On palæographic grounds the inscription can be assigned to the early centuries of the Christian era. The find of these images is indeed unique on this side of India as few metal objects of such antiquity have been secured so far.

Relics on the Tāraṅgā Hill.

Other interesting Buddhist relics were seen by me on the

1. Al-Idrisi in Eliot's *History of India* I. 85.

Tāraṅgā Hill and they have not been fully described or mentioned so far. Tāraṅgā is one of the Jaina *tīrthas* or sacred places of pilgrimage. It is situated near the small village of Timba among the hills on the west bank of the Sabaramati river in Gaḍhwāḍa District of the Mahikantha Agency in Northern Gujarāt. It is about five miles to the north-east of the Railway Station of that name which is the terminus of the Mehsana-Taranga Hill Section of the G. B. S. Rlys. There are three peaks and in the basin of it are situated the Jaina sanctuaries. Round the hill is a fort-wall. It is approached by a path which leads through about three miles of flat scrub-covered country. Then one has to go up a steep slope of loose sand for half a mile followed by a roughly paved ascent. After climbing this ascent one has to pass through a large arched portal in the rampart. Finally going down a very gentle descent one reaches a basin among the hills in the middle of which and surrounded by an extensive courtyard stands the temple of Ajitanātha built by Kumārapāla (1143-1174 A.D.), in his later years. Nearby are some Digambara shrines also. For a graphic account of the Ajitanātha temple readers may refer to the *Architectural Antiquities of Northern Gujarat*, by Burgess and Cousens, (pp. 114-116).

At a short distance after entering the fort-wall a way branches off and leads us to the basin of ravine, along a steep sandy slope. The situation is fascinating and it is cool shade of trees everywhere. Near the ravines are two shrines which are Buddhist. They have not been noticed by Burgess and Cousens. That Tāraṅgā was a Buddhist *tīrtha* originally is amply demonstrated by the *Kumārapāla-charita*¹ of Soma-prabhāchārya (12th cen. A.D.) wherein in the story of Khapuṭāchārya, we read of a king named Veṇī-Vatsarāja, probably a mythic personality. We are told in that work that he became a convert to Jainism and that he had originally built a temple of Tārā, the Buddhist Goddess of that name and that the town was called Tārāpura. Afterwards, we are further told, he built the temple of Siddhāikā, who, as we know, is the Yakshī of Mahāvīra, when he espoused Jainism. Kumārapāla finally built on the hill the temple of Ajitanātha. Relevant² verses from the book are quoted below :—

1. *Kumārapālacharita*, Gaekwad's Oriental Series, No. XIV.

2. *Ibid.* pp. 462-3.

इय विज्जामाहृप्पं अच्चन्नुयमज्जखड्डसूरीणं ।
 दङ्गूण वच्छराओ पडिवन्नो वीयरायमयं ॥
 ताराइ बुद्धदेवीइ मंदिरं कारियं पुव्वं ।
 आसन्नगिरिम्मि तओ भन्नइ ताराउरं ति इमो ॥
 तेणेव तत्थ पच्छा भवणं सिद्धाइयाइ कारावियं ।
 तं पुण कालवसेणं अजियजिणेंदस्स मंदिरं तुंगं ॥
 दण्डाहिव-अभएणं जयदेवसुएण निम्मवियं ।

Thus even according to the Jaina tradition Jainism followed Buddhism even on this hill. Now I shall describe the Buddhist relics on the hill to which a reference is made in the previous paragraph.

(1) *Tāraṇa-mātā temple.*

This temple is carved inside a rock, and on a platform 15' × 2' × 3' stand nine images, many of which are now mutilated. All of them are Buddhist but cannot be identified with certainty. Only one of them appears to be of Avalokiteśvara from the lotus stalk in his right hand. The central female image is pointed out as that of Tāraṇa-mātā. The images could not be studied properly on account of darkness inside, nor could they be photographed. Photo taken with flash-light arrangement will help to identify some more of them.

(2) *Dhāraṇī-mātā.*

The accompanying plate (see Plate) illustrates the image of Tārā about (4' height) which is housed in a small shrine nearby. The image is locally known as Dhāraṇī-mātā. The Goddess is seated in the *lalita* pose, on a lotus seat on which her left leg is folded, with her right foot hanging down and resting on a small lotus. Her right hand, the palm of which is broken off and rests on her thigh must have been in the *varada* pose if the proposed identification is correct. The palm of the left hand also is broken but the lotus and its stalk which she must have held in it are visible. Very probably the image is of *Varada-Tārā*. Over the halo of lustre behind the head of the goddess there is a picturesque ornament with a double-winged bird over which on a lotus seat is seated Amitābha. As a matter of fact we should have expected Akshobhya.

The presence of Amitābha, however, can be accounted for in this way. Tārā is the counterpart of Avalokiteśvara who emanates from the *dhyaṇī* Buddha Amitābha. Naturally Amī-tābha is represented in the image of the female counterpart of

Avalokiteśvara. On both the sides of Amitābha are flying attendants with garlands in their hands. Just below them are two Bodhisattvas, who can be recognised as Maitreya and Avalokiteśvara, on the right and left of the seat of Amitābha. Avalokiteśvara is on the left as can be seen from the stalk of lotus springing from his broken left hand. The figure on the left is that of Maitreya as can be inferred from the flower in his left hand. If the identification is correct the flower ought to be Nāgakeśara. According to his *dhyaṇa* when Maitreya appears as a minor god he carries a chaurie in the right hand and a Nāgakeśara flower in the left. (See *Indian Buddhist Iconography* by Dr. B. Bhattacharya p. 14). Both are seated on lotus seats. Then there are four attendant deities two on each side. Their identification is conjectural as they are mutilated. If however it is correct, on the right of the goddess we should get Mahāmāyūrī and Jāṅguli. Instead of the latter we get Hayagrīva who can be recognised by his terrible appearance and the staff he wields. The goddess above Hayagrīva seems to be Mahāmāyūrī. The figure on the left corresponding to Hayagrīva appears to be of the four-armed Ekajaṭā. Her left hands are mutilated. She probably carries in the right hands a sword and an arrow as her *dhyaṇa* requires. An interesting point here is that Ekajaṭā is seated on what looks like a tiger. Above Ekajaṭā is a seated attendant who can be identified as Aśokakāntā Mārīchī from the branch (of Aśoka?) she holds on her right shoulder. All these attendants are seated on lotus seats. The only divergence from the image of Varada-Tārā is the presence of Hayagrīva in place of Jāṅguli. The identification of these attendants is tentatively proposed. Below the seat of Tārā are seen the seven Jewels¹ of the Buddhists, which are represented in the following order from left to right.—

1. The Seven Jewels.

The *ratnas* according to Buddhism are three, seven, or sixteen in number. The Jains have fourteen *ratnas*, whereas the Hindus have fourteen, nine or five.

The following are the seven *ratnas* or jewels observed in the sculpture under notice, according to Pali Text Society's *Pali English Dictionary* :—"A set of seven valuables belonging to the throne (empire) of a (world-) king. These are enumerated singly as follows :—

- (1) the wheel (*Chakra*) (*Dighanikāya*, II, 172 ff) ;
- (2) the elephant (*haṭṭhi*) (*ibid* II 174, 187, 197) ;
- (3) the horse (*assa*) (*ibid*) ;
- (4) the gem (*maṇi*) (*ibid* ii, 175, 187) ;
- (5) the woman (*itthi*) (*ibid*) ;

(1) elephant, (2) horse, (3) damsel, (4) the financier holding a money purse, (5) swordsman, (6) wheel or *chakra*, (7) a squatting female with probably a *maṇi* in her hands.

Just below this representation is incised the usual Buddhist formulæ

ये धर्मा हेतुप्रभवा हेतुं तेषां तथागतो ह्यवदत् ।

तेषां च यो निरोध एवमादी महाश्रमणः ॥

The writing of this inscription is in the usual Northern Indian alphabet which is found used in similar sculptures from Bengal and it might be suggested that the local Buddhists got these images wrought from outside, as even now good marble images are brought, say, from Jaipur. On palæographic grounds this sculpture can be assigned to about the 8th or 9th cen. A.D.

(3) These relics are almost at the foot of the hill by the side of a ravine. I however noticed another sculpture in the jogidā Cave which is outside the fortwall, and is approached by a very difficult and rugged path. The cave is primitive in appearance and the passage through it is dark and difficult. In the centre of the cave on a square seat of rough stones is a panel with four seated Buddhas on it. It measures $2\frac{1}{4} \times 1\frac{1}{3} \times \frac{1}{3}$. The figures are a little damaged. Each image has a halo of lustre round it with branches and fruits of trees over it. The panel is almost like the one shown in Plate VI (d) of Dr. B. Bhat-tacharya's '*The Indian Buddhist Iconography*'.

Other Relics.

The Amreli excavations conducted by the Baroda Archæological Department were also fruitful in bringing to light some small Buddhist figurines. The excavations may bring to light, we hope, finds like those excavated at Nālandā, Taxila and other Buddhist centres. A reference to the Annual Report of the Archæological Department of Baroda for 1935-36 will give an idea of the nature of these finds.

Some place names are suggestive of Buddhist origin. I may quote one by way of example. The village of Vihāra in

(6) the treasurer (*gahapati*) (*ibid* II 176, 188) ;

(7) the adviser (*pariṇāyaka*) (*ibid*).

The swordsman in our sculpture has got to be identified with *pari-ṇāyaka* of the list given above. Getty in her "*The Gods of Northern Buddhism*," (p. 194) has given an enumeration of these jewels with explanatory remarks. The seventh jewel according to her is 'the best leader' (military chief), who with his sword of wisdom repeals the enemies.

the Vijapur Taluk of Mehsana District would remind even an ordinary reader of a Buddhist monastery. It may be pointed out in passing that the village of Mahuḍi, early bronze images from where are referred to above, is not at a great distance from it.

I have given in brief an outline of the Buddhist relics in Gujarāt, with details of those discovered by the Baroda Archæological Department. I hope further intense study in this branch of history will bring to light many more important Buddhist and other finds and throw a flood of light on the dark lacunæ of our history.



Tara or Dharani Mata

THE ART OF CUTTING HARDSTONE WARE IN ANCIENT AND MODERN INDIA.

By

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The art of cutting hard stones is very ancient. Egypt, Chaldea, Ninevah, Babylon, ancient Iran and India produced gems and beads, cameos and engraved seals in hard stones which must have been held in great demand by the ancient world.

The excavations at Mohenjodaro and Chanhujodaro in Sindh, Nal in Baluchistan, and Harappa in the Panjab have yielded beads of various shapes and sizes in carnelian, jadeite, riband jasper, red, yellow and blue jasper, agate, moss agate, onyx, amazon-stone, heliotrope, plasma, lapis lazuli, chalcidony, etc.,¹ which are of excellent workmanship.

The stone vessels excavated at Mohenjodaro and Harappa are few in number; majority of them being shallow bowls clumsy in shape carved in softer stones such as alabaster, sandstone, limestone or slate. A few pieces in alabaster imitate more complex forms of potteries but they are so badly bored that they could scarcely have served as receptacles. Only one tumbler of hardstone was discovered at Mohenjodaro which is described as "a flat based tumbler a little over five inches in height which was found with a hoard copper bronze and is made of the very rare jade green crystalline stone called fuchsite, a material at present no nearer to Mohenjodaro than Mysore".² In spite of the rarity of the stone no special care was taken in its manufacture. It is definitely out of shape and bears the marks of the drill used to bore it.

The drill used to bore these bowls was very much alike the flint drills used in early times in Egypt. It is shaped like a Boeotian shield in form with the upper face nearly flat and the reverse convex, while the two rounded ends were pronouncedly levelled. A forked stick was attached to the drill and

1. Mackay, *The Indus Civilisation*, p. 110.

2. *Ibid*, pp. 160-161.

it was turned round and round for boring while sand or emery served as abrasive. The interior of the stone vases were drilled with tubular drills which have often left their marks.¹

Throughout the Harappa period, Chanhujodaro was a great bead manufacturing centre, and Dr. Mackay large number of beads in various stages of manufacture. It is curious however, that completely fewer number of finished beads were found. According to Dr. Mackay finished beads seem to have been sent up for trading purposes. "A particular interesting find was a number of drills made of blackish chert, in appearance resembling the graphite of lead pencils. We know how the stone beads of the ancients were bored. These chert drills are of the same hardness as the stones from which the beads were made, and, this being so, some abrasive similar quarry of emery must have been made with them. (*A. S. R., Ann. Re. 1935-36 p. 41*).

Coming to the historical times there is hardly an archæological site which has not yielded beads of hardstones,—chalcedony, rock-crystal, amethyst, carnelian, onyx, jasper, lapis lazuli, agate, etc., of various shapes and sizes. Taxila and other sites in North West Frontier; Bhītā, Kauśāmbī and also hosts of other sites in the United Provinces in the districts of Benares, Āzamgarh and Ballia, have yielded crop of beads of exquisite workmanship. At Chirayyākot, an archæological site in Azamgarh district, United Provinces, the haul of finished and unfinished beads was at one time so great that on enquiry we found out that there was a tradition among the villagers that the ancient site belonged to the 'Maniārs' or lapidaries and the abundance of beads in that site was explained to their flourishing trade in beads.

Vessels of hardstones are, however, extremely rare at these sites, and one of the oldest in the sequence of time is a beautiful crystal vase found in the drainage excavation at Patna, the ancient Pātaliputra, which belongs perhaps to the Maurya period. The labourers, by sheer chance, in the course of drainage excavation, tumbled upon a ruin which may very properly be called a lapidary's shop, in which were found thousands of beads in various stages of finish blocks of hardstone etc., the implements with which the lapidary worked, a stove, various drills for boring holes in the beads, tubular drills for boring inside of the vessels, and a stone with various channels in which half finished beads were smoothened by

1. Mackay, *The Indus Civilisation*, p. 161.

friction. Taken in conjunction with other antiquities discovered in that excavation, especially punched marked coins, this lapidary shop could be assigned to the Mauryan period, and hence the crystal vase belongs to the third century before the Christian Era.

Crystal vases, however, seem to have greatly been used as reliquaries. Earliest example of such reliquary is a crystal bowl discovered by Mr. Peppe, in 1898 from Piprhawā in the Basti District, U.P., from a big stone coffin, along with vases, a steatite relic casket containing the bones of the Buddha and other smaller antiquities. The bowl is made of two pieces of crystal (*sphaṛika*) the lid having a fish-shaped handle. The bowl is assigned to the 4th century B. C.¹

Cunningham recovered a round flat box of crystal from a *stūpa* at Bhilsā.² The box was two inches in diameter and sixteenth of an inch in height. A second curious relic casket discovered from the *stūpa* No. 2B from Bhojpur at Bhilsā was shaped like a tope with its terrace, plinth, dome, square pedestal and double *chhatra*-pinnacle—all complete. The pinnacle formed a stopper.³

A reliquary crystal bottle was discovered by Pandit Bhagwan Lal Indrajī from Sopārā⁴ (now in the Royal Asiatic Society of Bombay) which is about three and a half inches high and three inches in diameter, and consists of two parts, a body and the lid. The body is one and a quarter inches high, and the lid two and a quarter inches. Its base is flat. The *stūpa* from which it was recovered along with other sacred relics could be assigned to the period of Yājñasrī, a Sātvāhana king of the 2nd century A. D. Another reliquary crystal bottle was excavated from Mīrpurkhās,⁵ now resting in the Prince of Wales Museum, Bombay; also a six-sided reliquary measuring 2" × 1½" was excavated from the Shāhjikī Dherī.⁶

The fewer number of vessels in hardstone in ancient

1. T. Bloch, *Supplementary Catalogue of the Archaeological Collection of the Indian Museum*, pp. 1-2.
2. Cunningham, *Bhilsa Topes, or Buddhist Monuments of Central India*, p. 316. London, 1854.
3. *Ibid.*, p. 331 (Pl. XXVI.)
4. Bhagwanlal Indrajī, *Sopara and Padana. The Journal of the Bombay Branch of the Royal Asiatic Society* 1881-1882, p. 307.
5. *Ann. Rep.*, A.S.R. 1909-1910, p. 88.
6. *Ann. Rep.*, A.S.R. 1908-1909, p. 49.

India clearly indicate that their manufacture was hard and skilful job confined only to a few artists whose products were either confined to the use of royalty, as the Patna crystal vase, or for the purpose of depositing holy relics, for which no expense was spared in ancient India.

In the North West Frontier Province dominated by the Indo-Greeks the art of engraving hardstones in the shape of cameos and seals was held in great favour. The art seems to have been inspired by the Greeks.¹ A unique collection of such seals is housed in the Indian Museum and is known as Pearce Collection of engraved gems. An interesting assortment of beads, etc., of this period was unearthed from Taxila. The beads in hardstones sometimes took the shape of animals or birds, such as lion, tortoise, or goose, etc.²

From the relic chamber of *stūpa* N⁷ near Dharmarājika *stūpa* at Taxila, was found a crystal lion.³ From the relic chamber of the *stūpa* in court A at Sirkāp were found some broken pieces of what must have been a singularly beautiful casket, the fine workmanship of which suggest Mauryan period.⁴ Some interesting articles of agate were also unearthed at Sirkāp, Taxila. One is a beautifully finished perfumed holder of agate which perhaps dates back to the late Parthian period.⁵

Unexpected light on the industry and manufacture of hardstone in ancient India is thrown by India's export of precious and semi-precious stones to the Roman Empire, the notice of which is taken by Pliny, who gives India with its rivers the epithet of 'gem-bearing country'.⁶ The information obtained from Pliny, and the collections of Greek and Roman gem stones, rings and jewellerys, together with the passages in Strabo and other writers gives us a fair account of trade in jewels between India and Rome. We are told that the trade in precious stones with Rome stopped after the downfall of Perseus and Mithradates which brought to Rome oriental stones taken to the West by the conquest of Alexander. In the times of the Selucids and Ptolemies the

1. Marshall, *Guide to Taxila*, p. 28.

2. *Ibid.*, p. 41.

3. *Ibid.*, p. 47 (Pl. XVI, II).

4. *Ibid.*, p. 84.

5. *Ann. Re. A.S.I. 1923-24*, p. 66 (Pl. XXVII. fig. 10).

6. Pliny, XXXVII. 200.

Romans became very fond of Indian jewels. The practice of gem-collecting became universal in the first century B. C., and Scaurus, Julius Caesar, Marcellus, Maecenas, Vespasian and Hadrian became great collectors. The demand for jewels was so universal that every rich man in Rome had his own gem cabinet, and the poor men who could not afford it contented themselves with cheap imitations.

We are not concerned here with such precious stones as diamond, sapphire, etc., exported to Rome but mostly with the oxides of silicon grouped as quartzes and opals, such as chalcedonies, carnelian, sard, onyx, etc., which were exported in great quantity to the Roman Empire. The working of German and Hungarian mines had not yet begun. Carnelian and sard were used in early times, and they are not distinguished in the catalogues of the great collections as the above two stones really belong to the same group. Pliny (XXXVII 106) remarks that the sard was a very common gem, 'apud antiquos,' and the collections of his time showed that the common carnelian and sard together with banded agate were going out of use, being supplanted by Indian sard. Articles of Indian sard, examples of which are preserved in antique rings and vase fragments from ancient Rome, are noted for their beauty.

Deccan traps and Ratanpur near Broach in Rajpipla where the sard or sardonyx mountains of the Greeks are situated were the ancient Indian sources of sard. According to the testimony of Periplus the Greeks obtained their fine sard and carnelian with other agates at Barygaza.¹ The much discussed "Myrrhina (or Murrea) vasa", held in great favour and highly valued by the Hellenistic Greeks and Romans, were, as Warmington suggests, neither vessels of fluor-spar nor of porcelain but of best oriental sard and carnelian obtained mostly from India.² These cups were first introduced to Rome after Pompey's victory and became articles of great luxury. Emperor Nero is said to have paid three hundred talents, equivalent to £. 58, 125 for a Myrrhina cup!³ This luxurious habit of possessing these cups increased to such an extent that Pliny had to lament that the Romans

1. McCrindle, *Periplus of the Erythrean Sea*, Indian Antiquary, VIII, p. 117.
2. Warmington, *The Commerce between the Roman Empire and India*, p. 238.
3. Vincent, *Commerce of the Ancients*, II, 727.

should hold India in the hand in order to be drunken.¹ Even in the time of Augustus carnelian was a favourite stone among the wealthy for sideboard tops, vases, wine-scoops and vessels for eating and drinking. According to Propertius, who lived before Hippalos, and also supported by Pliny, these cups came from Parthia but Periplus says that they were brought from Ujjain to Broach for exportation to Egypt.² The attribution of these articles to Parthia seems to have been due to the fact that the Parthians wanted to guard the secret of the origin of the manufactured articles in carnelian, etc., in order to monopolise the trade for themselves. Typical cups could hold a pint, the larger ones being rare. Pompey is however said to have obtained a board 4 feet by 3 feet made of two slabs.

The Romans obtained their cups ready made from the East but sometimes they were also manufactured on their way to Alexandria.³ India also exported chalcedony which was called 'iaspis' by the Greeks. According to Pliny, large cups of iaspis were imported in Rome!⁴ Sapphirine chalcedony, apple green chrysoprase, plasma which now comes from the north of Bhīmā river, from the Kistna and Godavari river beds, and from Kandahār were exported in large quantities. Warmington identifies the very large 'emeralds' of Pliny which were capable of being hollowed into cups as plasmas; onyx, sardonyx jaspers were also in great demand.⁵

In ancient times rock crystal was obtained in Europe from Allabanda, Orthosia Cyprus, and perhaps from the regions about the Red Sea, but Indian crystal was preferred. The mineral is worked in many places in India; at Aurangpur near Delhi, Kalabagh, Kashmir, Sambhalpur, the Godavari basin, Morvi, Hyderabad, Tankara, the Rajmahal Hills and the Panjāb are centres of this dyeing industry. It was used by the Greeks and Romans for ring stones, models in the round, hand balls, burning lenses and so on; but crystal wine cups, particularly for iced drinks, were greatly favoured by Romans who had special cabinets for their crystals under the charge of special keepers. Most of these cups were

1. Warmington, *loc. cit.*, p. 238.

2. Periplus, *loc. cit.*, 49.

3. Warmington, *loc. cit.*, p. 239.

4. *Ibid.*, p. 242.

5. *Ibid.*, p. 242.

manufactured in India but some were made at Alexandria from the crystal exported from India.¹

The taste for gem stones remained unabated even in medieval times; Sanskrit literature simply bristles with references to gem stones, and Bhartrihari, a poet of great force and beauty, says that a gem stone polished on whetstone (*mañiḥ śāṇolladhah*) though diminished in size has its beauty increased. The medieval *agamas* also prescribe various precious, semi-precious stones as crystals (*spha'ika*), diamond (*vajra*), agate (*vaidūrya*), for making images. The temple of Chidambaram has a crystal *linga* which is about nine inches in height and has a *pinḍikā* of as many inches in diameter.² Many so-called *hiraka mūrtis*, or 'diamond images' of Jains are made from crystal. Crystal *liṅgas* are still manufactured in great numbers in Hyderabad State, Jaipur, etc.

Practically all the medieval archæological sites yield beads of chalcedony, agate, carnelian, etc., in such numbers that it leaves no doubt that beads must have formed a favourite form of ornament with the people. It is difficult however to say whether the vessels of hardstones were ever held in great esteem by the Hindu Rajas of those times. They seem to have preferred gold and silver vessels resplendent with jewels, to stone vessels.

Coming to the ninth and tenth centuries we find that the Arab travellers do not mention the agate trade of Cambay which in ancient times was the most important centre for the manufacture of articles in hardstones. The fifteenth century travellers only make casual references to agate as one of the products of Cambay. Early in the sixteenth century the trade, however, seems to have risen in importance. Varthema,³ who stayed in India from 1503-08 speaks of two mountains, one of carnelian about seventy miles, and another of diamond about one hundred miles from Cambay. The Portuguese traveller Barbosa who visited India in 1514, speaks of the trade, between African and Arabian ports, in the carnelian beads of Cambay. Thus in the port of Sofala grey, red and yellow beads were brought

1. *Ibid.*, pp. 245-246.

2. Gopinath Rao, *Elements of Hindu Iconography*, Part I. pp. 48-50.

3. *The Travels of Ludovico Di Varthema, A. D. 1503-1508*. p. 107. Translated by John Winter Jones, and edited with a Preface by George Percy Badger. Hakluyt Society, London, 1863.

by the merchants of Cambay.¹ Speaking of the trade itself as carried on in Cambay he says: "In these places there are great artists who manufacture and pierce these beads in various fashions, oval, octagonal, round and of other shapes; and with this stone they make rings, buttons and knife handles; and the Cambay merchants go there to buy them and they harden them to take them away to sell in the Red Sea, from whence by way of Cairo or Alexandria; and they also carry them throughout all Arabia, Persia and Nubia, and now they carry them to India where our people buy them. They also find in this town much chalcedony which they call babagore. They make beads with it and other things which they wear about them so that they touch the skin, as they say that it is good for chastity."²

Articles from agate were also manufactured in the Deccan. The Russian traveller Athanasius Nikitin (1468-1474) says that the akik was manufactured at Kurula near Gulburga and exported to all parts of the world.³

Coming to the Mughal period of Indian history various foreign travellers have taken notice of agate trade in Cambay. Finch (1608-11)⁴ mentions the mines of agate near Broach; Herbert (1628)⁵ speaks of agate as one of the chief articles offered at Swali; Mandeiso (1638)⁶ speaks of Cambay agate, carnelian and jasper; Tavernier (1651)⁷ speaks of Cambay as the place where the agate cups were hollowed; Ovington (1689)⁸ cites agate as one of the chief articles of trade at Surat. The latter especially admired the carnelian rings. In the 18th century the traveller Hamilton (1700-1720) takes greatest notice of this trade. "The carnelian and agate stones are found in its rivers and nowhere in the world. Of carnelians they make rings and stones for signet; and of the agate, cabinet of entire stone except the lid. I have seen some of them fifteen inches long and eight or nine inches

1. Durate Barbosa, *A Description of The Coasts of East Africa and Malabar*, p. 5. Translated by Henry Stanley. Hakluyt Society, 1866.

2. Durate Barbosa, *Ibid.*, pp. 66-67.

3. Major, *India in the 15th century; Travels of Nikitin*, p. 30. Hakluyt Society, London 1857.

4. *Early Travels in India*, p. 174. Ed. by W. Foster, London, 1921.

5. Herbert, *Some years' travels into diverse parts of Africa, and Asia, the Great*, p. 45. London, 1665.

6. Mandelso, *Voyages du Sr. Jean Abert de Mandelso*, p. 103. Paris, 1726.

7. Tavernier, *Travels in India*, Vol. I. p. 69. Trans. by Ball. London, 1889.

8. Ovington, *A Voyage to Surat*, p. 282. London, 1696.

deep, valued at £. 30 or £. 40 sterling. They also make bowls of several sizes of agate, and spoons and handles of swords, daggers, knives and buttons, and stones to set in snuff boxes, of great value."¹

The Mughals held the vessels of hardstone in great favour both because they were difficult to manufacture and also because they were highly artistic and formed a valuable collection in the Imperial Treasury. Emperor Jahāngīr, whose æsthetic temperament made him a great lover of art and nature mentions at several places in his *Memoirs* crystal ware which came to his notice either by presentation or otherwise. Thus he mentions 'a little crystal box of Frank-work made with great taste'² presented to him by Khurram. He once sent to Shāh Abbās of Persia a crystal cup which was sent to him by Chelebi of Iraq.³ So fond was Jahāngīr of crystal that according to the testimony of Thomas Roe, among all the rich presents which the King of Bijāpur sent to him he appreciated one figure of crystal the most.⁴ Roe himself presented Jahāngīr a little crystal box of English workmanship, which, according to his testimony, the king appreciated more than a diamond valued at £. 6000 presented to him the same day.⁵

This love for crystals continued with other Mughal Emperors. Tavernier once presented to Aurangzīb a battle-mace (*gurz* or *shash-par*) of rock-crystal, all sides of which were covered with rubies and emeralds inlaid in gold in the crystal.⁶ Once Tavernier saw Aurangzīb drinking from a large crystal cup all round and smooth, the cover of which was made of gold.⁷

Golconda was a famous centre for the manufacture of crystal cups which were in great demand in the market of Masulipatam. Schorer (1614) a Dutch factor, records:

1. Alexander Hamilton, *A new account of the East Indies*, Vol. I. p. 127. London, 1744.
2. *Memoirs of Jahāngīr* (*Tuzuk-i-Jahāngīri*), Vol. I. p. 286. Tr. Rogers and Beveridge, London, 1909.
3. *Ibid.*, I. 374.
4. *The Embassy of Sir Thomas Roe to the Court of the Great Mughal* (1615-1619), Vol. I. p. 119. Ed. by William Foster. London, 1899.
5. Thomas Roe, *loc. cit.*, Vol. I. p. 144.
6. *Tavernier's Travels in India*, Vol. I p. 114.
7. *Ibid.*, I. p. 309.

'Fine crystal tumblers are in good demand, selling two and three for one pagoda'.¹

Jade, it seems, was introduced in India by the Mughals who must have imbibed love for this stone in their Central Asian home the source of nephrite. By the time of Jahāngīr the Mughal treasury had a fair number of jade (*yashm*) drinking cups. Captain Hawkins (1608-11) who visited India in Jahāngīr's time mentions the weight of jade articles in the Imperial Treasury as one battman (maund), which was imported from Cathay, i. e., Chinese Turkestan.² There were also many jade drinking cups in the Treasury.³

That unworked jade was brought from Kashgar to Kashmir, and thence to Northern India in the Mughal period, is evident from a reference to jade and crystal exports to Northern India from Central Asia by way of Kashmir.⁴

The use of jade became very popular during the reign of Shah Jahān. Regarding this Bernier says: "Jachen is in great estimation in the Court of the Mogol; its colour is greenish with white veins, and it is so hard as to be wrought only with diamond powder. Cups and vases are made with this stone. I have some of most exquisite workmanship inlaid with strings of gold enriched with precious stones." ⁵

A new method of inlaying jade with precious and semi-precious stone was invented in India in the Mughal period which was unknown to the Chinese who had worked in jade from time immemorial. When jade was introduced here the Indian genius at once realised the perfect ground it would afford for inlaying precious stones, and they were the first to inlay precious and semi-precious stones in encrusted gold designs on the jade. The Indian lapidaries specialised in beautifully encrusted and inlaid huqqa bowls, sword and dagger hilts, cabinets and boxes, amulets, and some beautiful examples of such work are to be seen in many public and private collections.

II

So far we have discussed only the historical importance of jade and other hardstones. In this section scientific

1. *Schorer's relation : Relations of Golconda in the early 17th. century.* Ed. by W. H. Moreland, p. 62. London, 1931.
2. *Early Travels in India, 1583-1619*, p. 102.
3. *Ibid.*, p. 103. 1921.
4. Francois Bernier, *Travels in Mogul Empire.* (A. D. 1656-1668), p. 426. Ed. by A. Constable, London, 1891.
5. Bernier, *loc. cit.*, p. 423.

description of hardstones, the articles manufactured from which we have in the Museum, will be attempted.

Agate named after the river Achates in Sicily where it was found in the time of Theophrates, has a peculiar banded structure, the bands being usually irregular in shape following the configuration of the cavity in which it was formed. It consists of 96 per cent. of silica with various proportions of alumina coloured by oxides of iron or manganese. In India agate is abundantly found in the Deccan rocks, in the Kathiawar Peninsula to the east of the Gulf of Cambay, and is largely cut in Cambay, also in Rajpipla and in the Rajmahal Hills, also in recent times in Banda in the United Provinces. But it would not certainly be exaggeration to say that Cambay is the chief centre of this trade, though in recent times the trade has greatly suffered owing to the lack of demand and due to change in fashion. Only small articles such as buttons, small paper knives, etc., are produced. A complete account of agate trade in Cambay has been given in the 'Gazette of Cambay' from which I give below some relevant points.

Cambay stones include two classes of agate found in different parts of Gujarat within a radius of 120 miles of Cambay; also many foreign stones are brought to be worked by the lapidaries. Of the first class the most important is the agate. In the natural state carnelian or flesh-coloured agate is called *ghor* in Gujarat and when worked upon *akik*. Carnelian is found within Rajpipla State on the left bank of the Nabadā about fourteen miles above Broach. The mines are on sloping side of a small sand hill known as Bawa Ghor or Bawa Abas Hill. The agate is mined by digging shaft in the mountain by a group of few men by small iron pickaxe and drawn out from the shaft in small baskets. It is then taken to Ratanpur and given to the contractor.¹

The rough stone generally passes through three processes sawing, chisseling and polishing. When the block is to be sawn it is brought to a strong frame of two uprights joined at the foot by an iron board tightened with a stick at the top by a strong doubled rope. The stone is placed on iron board and secured firmly. The saw which is toothless is worked by one or two men. The cut faces are smoothed by ground emery, fine sand and water being constantly poured in the gap. Then the cut part is put on an iron pike

1 Bombay District Gaz., p. 198.

driven into the earth and struck with horn-headed hammer till all roughness has been removed. Then it is taken to the polisher. His instruments are very simple. There is a wooden roller between two uprights fixed at one end; the roller works on iron spindle or axle; with this is attached the polishing disc, a plate made of emery and lac.¹ The worker, after fitting the disc, squatting on his hams steadies the machine with his foot. A bow, with a string passed round the wooden roller, is held in the right hand, and by moving the bow backwards and forwards, the roller, and with it the polishing plate, is whirled round, while the article to be polished is held in the left hand.

Rock crystal is the ordinary colourless variety; it is always crystalline and often crystallised. The crystals are elongated, varying from small pin to several feet in length. The rock crystal is abundant in South India, Bombay Presidency, Hyderabad, and practically all over the country. It is cut in various places in India, and is made into sword and dagger handles, into beads and other ornaments, or into necklaces and the like. They are turned out extensively at Jaipur. The method of working the rock crystal is the same as that of agate.

It is necessary to know something about the history of the word jade in English language. Prior to the return of Sir Walter Raleigh from America jade in English was known as 'yu' borrowed from China. Raleigh writing in 1595 referred to the jade of Spanish America as "piedras hijadas used for spleen stones". It seems clear that the name arose from the old belief that a jade stone placed over the kidney would be a remedy for ailments of that organ.² The word nephrite, which is used for jade, was also evolved along remedial lines. From the Greek 'nephrites' or kidneys; an English writer in 1706 speaks of 'nephriticus iapis' as a green stone from the Indies and Spain used in nephritic pains.³

Jade properly speaking consists of two distinct mineral species, nephrite and jadeite. The nephrite is a silicate of magnesium, iron and calcium, the magnesia being replaceable by ferrous oxide. The colour varies from grey to leaf and dark green, the tint deepening as the relative amount of iron increases. Brown tints result from the oxidation of the iron

1. *Ibid.*, p. 201.

2. John Goette, *Jade Lore*, p. 24, 1936.

3. *Ibid.*, p. 25.

along cracks in the stone. When polished it always assumes greasy lustre. Much of the nephrite used in China comes from the southern boundary, especially from the valleys of the rivers Karakash and Yarkand in the Kwen-Lun range; it is also found further north at the river Kashgar. It also occurs in various parts of China.

Jadeite is the choicest gem with the Chinese. It is composed of the silicate of sodium and aluminium. It has greasy lustre but is harder than nephrite, the colour varying from white to almost an emerald green, and often the green colour runs in streaks through the white. The finest jadeite comes from Mogaung district in Upper Burma where it is found in boulders. Jadeite is also found in Shensi and Yunnan Provinces of China and Tibet.

As I have already said, beads of jade have been found at various archæological sites in India but beyond that there is no further evidence that jade had any fascination for the Indians. The comparative absence of jade in ancient India might have also been due to the fact that it had to be transported from Central Asia, which must have been a costly affair quite beyond the pocket of ordinary people. The Mughal Emperors inherited taste for jade from their Central Asian ancestors further whetted by the beautiful Chinese jade.

The jade came to be known in India, Persia and Turkey as *sang yashab* or *yeshm*, and was chiefly employed in the Mughal period for the manufacture of cups, boxes, mirror frames and sword and dagger hilts, amulets etc.

In China, both ancient and modern, jade exercised a strange fascination. Besides being the gem par-excellence according to the Chinese, jade incorporates four virtues,—*jin*, Charity; *gi*, modesty; *yu*, courage, *ketsu*, justice, and *chi*, wisdom.¹ The Chinese turn out vast amount of vases, ornaments, toys, carvings, etc., which are greatly valued by the art connoisseurs.

As I have already observed, jade was held by the Spanish to cure kidney troubles. This faith in the medicinal properties of this stone was firmly established in the European aristocracy by the 17th century.² In India the belief in medicinal properties of this stone went a stage

1. Herbert Smith, *Gem Stones*, p. 260.

2. Goette, *loc. cit.*, pp. 24-25.

further. It was and is still supposed that the liquor drunk from a jade or agate cup allays palpitation of the heart, and the cup itself is believed to act as protection against poisoning.¹ A man suffering from heart disease is advised to wear an amulet of jade called *hauldili*. The belief in the nature of jade to crack when in contact with poison is so deep rooted that one often hears jewellers offering cracked jade-ware for sale assigning the cracks to poison. This belief gained so much ground that even celadon porcelain, known as *gori* in India, because of its green colour resembling so much with the light green jade came to be imbued with miraculous quality of cracking when in contact with poison. The belief seems to have originated from the resemblance of the green colour of jade with the green of serpentine, known as *jahar mohrā* in Hindustani, which is said to be a wonderful remedy for snake and scorpion bites.

The method of working the jade is practically the same as agate. A heavily loaded bow with wire string is used for sawing, corundum and water furnishing the wire with a cutting material, while the grinding and polishing wheels are the usual discs of corundum and lac, turned with the drill bow for small work, or with the strap for heavy; but always with the-to-and-fro non-continuous revolution.

Lack of demand in manufactured articles of jade has dealt a serious blow to the industry, and the descendants of lapidaries, *haqqāqs* or *Begadīs* (Sanskrit, *Vaikatika*) as they are known in Northern India eke out their miserable existence by cutting stones for signet rings or jade amulets, or repairing sword hilts. These few workers in jade are only to be found in Delhi, Jaipur, Benares and Lucknow. I can say from personal experience about Benares, where once a very flourishing business was carried on in cutting hardstones, so much so that a whole street was named after lapidaries (*Hqqāq Tolā*), there now remain only four old men whose death will ring the death-knell of this industry.

Delhi is still famous for its jewelled jades. The following account of jewelled jades of Delhi is quoted from the District Gazetteer: "Another speciality of Delhi is the incrustation of jade with patterns, of which the stem work is in gold and the leaves and flowers in garnet, rubies, diamonds, etc. The mouth pieces of *huqqas*, the hilts of swords and daggers,

1. Watt, *Dictionary of the Economic Products of India*, Vol. IV, p. 540.

the heads of walking canes and curious crutch-like handle of the *Bairāgīs*, staff also called *bairāgī*, are, with locket and brooches for English wear, the usual application of the costly work. Each individual splinter of ruby or diamond may not be intrinsically worth very much, but the effect of such work as a whole is often very rich. The *murassakār* or jewel setter was formerly often called upon to set stones so that they could be sewn into jewelled clothes. For this purpose as when the stone was to be encrusted upon another as with minute diamonds or pearls on large garnet as common Delhi form, or on jade, he works with gold foil and a series of small chisel-like tools and fine agate burnishers."¹

Bhera in the Shahpur District of Panjāb specialises in working in false jade which is pure serpentine or bowenite called by the natives as *sang yashm*. This is imported from Afghānistān and sold at Attock. Being softer than jade it can be easily worked. Caskets, paper-weights, cups, etc., are manufactured.² Several fine examples of such work were exhibited in the Art Exhibition at Delhi in 1903.³

1. *Delhi District Gazetteer*, pp. 144-45.

2. *Shahpur District Gazetteer*, pp. 229-30.

3. Sir George Watt, *Indian Art at Delhi, 1903*, pp. 476-478.

KĀLAḌI

Or

THE BIRTH-PLACE OF SRI SANKARA.

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Brahmaśrī Śrīkaṇṭha Śāstrīgal of the śringeri Mutt will long be remembered for his eminent services to the cause of the Śringeri Mutt and particularly for refounding the agrahāram of Kālaḍi, celebrated as the birth-place of Ādi-Śrī śankarā-chārya. Śrīkaṇṭha Śāstrīgal with his usual enthusiasm proceeded like its traditional founder Rājaśekhara to found a temple, a pāṭaśāla, a *sattna*, a guest-house, and finally a new settlement of Brahmanas and others for the service of the temple and the other connected institutions. The author of this short paper had the pleasure of visiting this hallowed place sometime back and was struck with the wonderful way by which the long neglected village has been revived and restored to its past glory. This village of Kālaḍi is about six miles to the east of Alwaye, a railway station on the Cochin-Shoranur line. The temple which is, of course, of recent origin stands on the bank of the ever flowing waters of the Alwaye river, otherwise known as Cūrṇī river. This stream is also known as Periyār.

In the course of a conversation with Mahāvidwān R. Raghava Ayyangar, now in the Annamalai University, I heard that he had his own doubts about the present recovered Kālaḍi on the Alwaye river. He drew my attention to the fact that the *Śankara-vijayas* which give us information about the birth-place of Śrī Śankara refer to a Kālaḍi, not far from the river Pūrṇa, which he would identify, not with the Alwaye River but with *Ponnāni* river. The Ponnāni river is also known as Periyār among the Malayālis. In fact, a Malayāli scholar tells me that the Alwaye River and Ponnāni are the two large streams in Malabar, the waters of both containing medicinal properties, and that people called them Periyār in its literal sense of 'a great river' or the 'mighty river.' Following the Mahāvidwān,

M. Raghava Ayyangar of the Tamil Lexicon Office also contends that the Pūrṇā could not be anything else than the present river Ponnāni. The Tamil literature of the Śāṅgam period, it is argued, refers to two rivers Śulliyāru which is to be identified with Cūrṇi and the Periyār which is Pūrṇā.¹ And Ponnāni takes its name from this Pūrṇā which is the Bhāratappulāi of Malabar. If Pūrṇā is Ponnāni, then it is suggested that the birth-place of Śri Śāṅkara should be sought for on the banks of the Ponnāni. It is, therefore, maintained that the Kālaḍi village in Ponnāni Taluq may be the Agrahāra where the great Āchārya incarnated himself for the welfare of the world (M. Raghava Ayyangar's article 'Karur-Vanji and Inscriptions' in the *Journal of Oriental Research* of the University of Madras, Vol. I, parts 1 and 2).

A student of history who is anxious to know the truth feels compelled to investigate the whole question once again. Our sources of information are merely tradition embedded in literature with which goes by the name of Śri *śāṅkara-vijayas*, two of which are attributed to the authorship of Mādhavācārya and Ānandagiri. *Chidvilāsa* is another work of importance. Besides, we have traditional account of the life and career of the Āchārya in South Indian vernaculars like Tamil, Canarese, and Malayalam. Of these chronologically the earliest seems to be the composition of Mādhavāchārya who is identified with Vidyāranya, the minister of Harihara and Bukka, the founders of the Vijayanagar empire. Of other works, Wilson would attach some value to the account of Ānandagiri, but Telang would dismiss it as untrustworthy material. So we shall attach no value to this statement that the Āchārya was born at Chidambaram. There is, however, a general unanimity with regard to the *Śāṅkaravijaya* of Madhavāchārya, and therefore we proceed to examine the relevant passages which throw light on the birth-place of Śri Śāṅkara.

Tatō maheśah kila keraleşu Śrīmad vṛśādrau
Karunāsamudrah |

Pūrṇā nadī puṇya taṭe svayambhūlingātmana
anaryadhagāvirāsīt. ||

1. To venture a conjecture, Pūrṇā may be a variant of Porunai of Śāṅgam literature. Whether the Periyār of the Śāṅgam works is a reference to Porunai or Śullāru, it is not possible to say at this distance of time.

Taccōditah kaścana Rājaśekharaḥ svapne
 muhurdr̥ṣṭa tādīya vaibhavaḥ |
 Prāsādamkam Parikalpya suprabham Prā-
 vartayat tasya samahaṇam Vibhōḥ ||
 Tasyeśvarasya Pranaṭārtihartuh prasādataḥ
 Prāpta nīrtibhāvah |
 Kaścittadabhyāśa jātōgrahārah Kālaṭyabhi-
 khyos sti mahān manojñah ||

(Ānandasrama series) II, 1.3.

From these lines one has to gather that there was once a chief by name Rājaśekhara. He had his palace on the banks of the river Pūrṇā. He dreamt one day that Lord śiva had manifested Himself in a place near his Capital as Svayambhulinga. He, therefore, built a temple in His honour and arranged for service in it. As the service was to be mainly done by Brahmanas, he also founded an Agrahāra of Brahmans, and this was named Kālaḍi. The story then goes to say that among these Brahmans was one Vidyādhiraḥ whose grandson was our celebrated Āchārya. What we are concerned here is about the location rather the identification of this Kālaḍi.

It is rather embarrassing to an enquiring student to know that there is more than one village in Malabar, Cochin and Travancore, which bear the same name Kālaḍi. Besides the Alwaye Kālaḍi to which reference has been made there is a village of that name in the Ponnāni Taluq. Recently, quite an academic discussion centred round the identification of the river Pūrṇā. To establish his thesis that Vancikkaruvūr, the ancient capital of the Cheras, was Mahodayapuri, the late lamented K. G. Sesha Ayyar pressed the evidence of the *Śukhasandeśa* of Lakshmidāsa, especially the passage relating to the Cūrṇī (*Pūrvasandeśa*, stanza 65) and sought to identify it with the Periyār.¹

Almost all books, ancient and modern, treating of Śankara's life mention the river Pūrṇā. [For example, see *Śribhagavat-pādābhud̐yam* by Lakshman Sūri (Vani Vilas, 1927) Ch. I, 12.] If other evidences lead us to infer that the Alwaye Kālaḍi is the birth-place of the Āchārya, then it is reasonable to adopt the reading of *Chidvilāsa*, as Cūrṇī. For, the present village is on the Cūrṇī river. And Pūrṇā in other texts must be a mis-

1, *The Cera Kings of Sangam Period*, p. 94.

lection for Cūrṇā or Cūrṇī. The Tamil translations of the life of Śānkara mostly follow Mādhavācārya's composition and use the term Pūrṇavāhmini (See *Śāṅkaravijaya* in Tamil, by Velayuda Mudaliyar, Madras, Ch. II, p. 12.) The other work in Tamil entitled *Śāṅkaravijayakāvya vacanam* by Sivanandayātindra Swāmi refers to the river simply as *Punya nadi* or the sacred stream (Madras, 1934).¹ To decide whether it was the Pūrṇā or Cūrṇī, we must take into consideration other cumulative evidences.

It has been agreed by almost every writer on the subject that Kālaḍi lay close to the hill Vṛṣādri or Vṛṣagiri. The hill is also known in literature as Vṛṣāchalam or Vṛṣabhāchalam or Vṛṣabhagiri. If we turn to the Malayalam *Nighantu*, we find Vṛṣagiri being indentified with Trichur.² Again, in his *History of Malayalam literature*, Narayana Panikkar refers to a certain *Keraliya śāṅkarācārya Caritam* where it is said that in the course of his pilgrimage tour Śānkara reached Vṛṣācala where was the Dakṣhiṇa Kailāsa. The *Sthala purāṇa* of Trichur calls that place Dakṣhiṇa Kailāsa. And therefore it is reasonable to take that the present town of Trichur formed a part of the original Vṛṣādri hill mentioned as lying close to Kālaḍi.³ Add to this, the *Śāṅkaravijaya in Malayalam* by Moosad.⁴ This author informs us that, according to a *Granthāvali*, preserved in the Tekke maṭam in Trichur, Padmapāda who was the first disciple of Śri śāṅkara inherited the property of Śānkara. According to a tradition, a pupil can be a legitimate successor of the Guru's property, if the Guru had no issue. The author of the Malayalam work also presses into service the tradition to the same effect recorded by Koḍungollur Kunhu Kuttan Tamburan. The *Sandeśa Kāvya*s—Sukhasandeśa and Kokila Sandeśa—again in their reference to Trichur call them Vṛṣabhādri. If this were to be established, then the Vṛṣādri hill should have extended to about 20 miles towards Kālaḍi side.

Be this as it may, it is difficult to get over a strong local tradition current in Kālaḍi village in the Kunnatnad Taluq of the Kottayam district. Śri Śānkara is generally admitted to be born to a Nambudri Brahmana, and is associated with the

1. See also the *Śāṅkaravijaya* with Canarese commentary by Lakshmi-dhara Śāstri.

2. *Sabda Tharavali*, Vol. II.

3. *A History of Malayalam Literature*, p. 146.

4. *Śāṅkarācārya Svāmigaḷ* by VASUDEVA MOOSAD.

celebrated family Kaipalli Illam. A particular spot of this village is claimed to be the place where the Āchārya's mother was cremated. The Ghat in the river close by is said to have been used by the Āchārya when he lived there and when his mother died. Thanks to the Government of Travancore, this and other sites nearby associated with the revered memory of India's greatest teacher in Advaita, have been acquired and preserved under their general policy of preservation of ancient monuments and objects of historic importance and national interest in Travancore. To use the technical expression Kālaḍi village is a *Sankathum* or a place held sacred.¹

Thus, all evidences point out that Kālaḍi on the Cūrṇi river should have been the home of the Āchārya Śankara which Lakshmana Suri thus describes. Yama who is also known as Kāla is terribly afraid of approaching persons who have made Kālaḍi, their home. So holy it is. As Kāla does this, wise men call this Kāladi.²

1. See V. NAGAM AYYA, *The Travancore State Manual*, II, p. 97.

2. जन्तोर्यदाश्रितात्कालश्रीकृते भयविह्वलः

इति हेनोक्दन्त्येन कालदीति विचक्षणाः ॥ Op. Cit. Ch. I. 15.

JAMBU THE ASIA MAJOR

By

HARILĀL RANGILDĀS MĀNKAD, B. A.,

Jodiyā (Kāthiāwād)

An attempt is here made to locate the countries, mountains, rivers and lakes of the Purāṇic Jambudvīpa and identify them with the corresponding regional portions on the modern map of Asia.

Jambudvīpa is the central¹ continent of the Hindu Geography of the world. Its extent on the modern map can be termed 'Asia Major' and its position can be defined as consisting of the whole of Asia excepting the portion west of the eastern Iranian frontier and the Sir Darya river. For our purpose this excluded portion may be called 'Asia Minor Enlarged'.

It is interesting to note that the land to the east of the Aegian Sea bears the same name Asia in three different parts—Asia Minor, Asia, and Austral-Asia. Such a practical classification of this land divides it into three regions corresponding to the three Dvīpas of the Hindu Geography—Plakṣa, Jambu, and Puṣkara respectively.

My identification of the Seven Dvīpas of the Hindu Saptadvīpā² World is as follows:—Jambudvīpa is the Asia Major; Plakṣadvīpa is the Asia Minor Enlarged; Śālmalidvīpa is Africa; Kuśadvīpa is Europe; Krauñcdvīpa is North America; Śākadvīpā is South America; Puṣkaradvīpa is Australasia; Suvarṇabhūmi is Antarctica. As for the corresponding oceans, Kṣāroda is the Indian Ocean; Ikṣurasoda is the intermittent crescent from the Red Sea to the Black Sea to the Aral Sea; Suroda is the Mediterranean Sea; Ghr̥toda is the Arctic Ocean; Dadhimandōda is the Atlantic Ocean; Kṣīroda is the Pacific Ocean; Śuddhoda is the Southern Ocean. And the Pātālas³ are in the Americas from Mexico to Bolivia. (Plate I).

1 Apte's Sanskrit Dictionary. Also, Dowson's Hindu Classical Dictionary.

2 A. B. O. R. I., XVIII. III.

3 Poona Orientalist, July 1937.

The Hindu method demarks the continents by naming the separating expanses of seas, while the delimitation of the countries within the continents is made by naming the dividing ranges of mountains.

The Hindu scheme of geographical classification is concentric and regional. The whole world is believed to be homocentric and lying around Mount Meru in concentric belts. Our present concern is with the Jambudvīpa and its subdivisions. These divisions are given as purely regional. Meru has boundary spurs of mountains on its four sides called Maryādā Parvatas. Apart from these there are the Varṣa Parvatas or the dividing ranges which separate Meru from the several countries, which in their turn have their own Kula Parvatas or main ranges. Though the Varṣa Parvatas thus separate the Varṣas from the central Varṣa, the Varṣas themselves are said to be separated by rivers.¹

The following are the generally accepted names of the 9 Varṣas and the 9 Varṣa Parvatas of Jambudvīpa :—Mount Meru surrounded by Ilāvṛta or Ilāvarṣa is in the centre. There are 3 Varṣas and 3 Varṣa Parvatas to the south of Meru and similarly 3 of each to its north; while there is one of each to its east as also to its west. On the south the first is Himavān with Bhāratavarṣa, next is Hemakūṭa with Kimpuruṣavarṣa and further still is Niśadha with Harivarṣa. On the north, the first is Nīla with Rāmyakavarṣa, next is Śveta with Hiranya-varṣa and further still is Sṛṅgavān with Uttara Kuru. On the east is Gandhamādāna with Bhadrāśva and on the west is Mālyavāna with Ketumāla. These Varṣas are roughly believed to range at cross angles forming a svastika².

Meru has four rivers of continental status flowing in four directions, viz., the Śītā or Śitā on the east, the Alakanandā on the south, the Cakṣu on the west, and the Bhadrā on the north. Similarly there are four lakes: the Aruṇoda on the east, the Mānasa on the south, the Śītoda or Sitoda on the west and the Mahābhadrā on the north.

Bhārata Varṣa is stated to be situated³ south of Himavān and north of Kṣāroḍa. This means that the rest of Jambudvīpa

1 Vāyu, 34, 27.

2 Mbh. Bhi, 1. 6. 39.

3 Nārada 3. 46.—क्षारोदयेत्तरं यदहिमाद्रेश्वैव दक्षिणम् ।

हेयं तद्भारतं वर्षं सर्वकर्मफलप्रदम् ॥

Also, Viṣṇu 2. 3.

lies to the north of Bhārata or India. Thus its situation is the first deciding factor in the location of Varṣas. As it is bounded by Kṣāroḍa there can be no other Varṣa on its due south and so the other southern Varṣas of this Dvīpa should lie to the east of Bhārata. For this purpose we will have to study the present map of Asia.

We may therefore proceed to examine that portion of the present-day Asia which corresponds to the Jambu of old referred to hereafter by us as 'Asia Major'. Let us first take the mountains. The northern and the Southern loops of the Iranian ranges meet on the north of India at the Pamir. Thence they divide into two branches with the central axis lying almost from S. W. to N. E. The Southern branch takes a big curve along the Himalayas, Yun Lin, In Shan, and Khinghan. The Northern branch extends to the Tien Shan, Altai, Sayan, Baikal, Yablonoi, and Stanovoi. These two systems again unite when they reach the Amur river. Roughly speaking India and China are to the south and Manchuria and Siberia to the North of the vast plateau forming this central mountainous enclosure. The chief rivers of the Asia Major are the Indus, Ganges, Brahmaputra, Irravaddy, Mekong, Yangtse, Hwang Ho, Amur, Lena, Yenisei, Ob, Sir Darya, and Oxus. It is interesting to compare this central Asian watershed with the description of the Meru region with its four continental rivers flowing in four directions.

Before proceeding further let us review the Purāṇic conception of the Meru-centric Ilāvṛta and other Varṣas. The infallible symmetry and the geometrical pattern into which this Puranic conception casts its geography may appear at first sight to be an outcome of an æsthetic fancy and not of a scientific regard for the facts as they were. This however is not wholly true. Meru is said to be the central one among the peaks forming the surrounding filaments of a land-lotus, which has in the four directions four petals in the form of the four Varṣas, viz. Bhadrāśva in the east, Bhārata in the south, Ketumāla in the west, Uttara Kuru in the north. On the four sides of this central mountain are four Maryādā Parvatas, four lakes, four rivers and so on.

The situation of Bhārata and Uttara Kuru in the above conception is to be noted with reference to Ilāvṛta as two orders are met with in the Purāṇas. On the one hand they are stated to be situated on the borders of Ilāvṛta as adjacent countries on its north and south respectively¹ (Plate III A). The general

1. Vāyu 34. 57

order of the countries or Varṣas is Bhārata, Kimpuruṣa, Hari-varṣa to the South of Ilāvṛta and Ramyaka, Hiranya, Uttara Kuru to the North¹. These six Varṣas together with the central Ilāvṛta having Bhadrāśva to its East and Ketumāla to its west make up the nine Varṣas of Jambu. The four varṣas that are between Bhārata with a Sea² to its south and Uttara Kuru with a Sea³ to its north must necessarily stretch eastwards from these. Following the general trend of the Varṣa Parvatas which are said to be extending eastwards⁴ this setting of the Varṣas would form a curve with its bulge in the East represented by the present Pacific coast of China; while the three central Varṣas would give a counter curve on the opposite side with a bulge in the west. Here if we examine the description of Purāṇic Jambu in the light of the Asia Major we find that it is physically not possible for the Varṣas to be ranging due south-north and east-west in a cross as the Purāṇas are commonly understood to be locating them.⁵ (Plate III B). But the Purāṇas themselves place such a presumption at a discount when they assign corners⁶, crescent shape,⁷ and triangular⁸ setting to the Varṣas and put Ilāvṛta by the side of Hemakūṭa along with Bhārata and Uttara Kuru on Meru's immediate south and north respectively. At the same time they put these two Varṣas as first and last in their order of enumeration as situated on the ends of a bow⁹ (Plate III C). It is obviously not possible for the two Varṣas to be first and last and also adjacent to the central Meru if all are situated serially in a vertical order (Plate III B). It is only possible in a curving position. This Purāṇic conception of a bow can actually be delineated on the modern map of Asia with a convexity on the East wherein the central three Varṣas—

1 Brahma 18. 21

2 Vide F. N. 3 Page 2

3 Vāyu. 45. 11,—उत्तरस्य समुद्रस्य समुद्रान्ते च दक्षिणे ।
कुरवस्तत्र तद्वर्षं पुण्यं सिद्धनिषेपितम् ॥

4 Varāha 75.11.

5 Brahma 18. 16.

6 Vāmana 15. 1. 5,

7 Mārkaṇḍa 51. 13.

8 Garuḍa 15. 60. 61.

9 Varāha 75.35.—धनुः संस्थे तु द्वे वर्षे विज्ञेये दक्षिणोत्तरे ।

Also, Mbh. Bhīṣma, 1.6.38.

Śiva Umā 17.34.

Agni 108. 21.

Ketumāla, Ilāvṛta, Bhadrāśva—take the place of an arrow shooting the eastern quarter from the western counter crescent. (Plate III E).

In the light of this generesemblance between the relief of Jambu and the Asia Major, the Varṣa and the Varṣa Parvatas can be identified in this way:—Afghanistan, India, Indo-China will be Bāratavarṣa; Southern China will be Kimpuruṣa; Northern China will be Harivarṣa, Manchuria will be Ramyaka; the country north of the Baikal and south of the Lena will be Hiranya; Siberia including Corea will be Uttara Kuru; Mongolia will be Bhadrāśva; the Khirghiz Steppes will be Ketumāla; and the central watershed from the Himalaya to the Tien Shan and thence to the Altai will be Ilāvṛta. The Varṣa Parvatas for these Varṣas will be these:—Himavān is of course the Himalaya; the Yun Lin will be Hemakūṭa; Tsin Ling will be Niṣadha; the Khinghans will be Nila; the Yablonoi will be Śveta; the Sayan will be Śṅgavān; the Alexander Range will be Mālyavān; the In Shan will be Gandhamādana; and Meru will be represented by Tien Shan with its highest point the Khan Tengri. (Plate II).

First we turn to Meru and Ilāvṛta. It should be borne in mind that the terms Meru, Sumeru, Mahāmeru, Ilāvṛta, Ilāvarṣa are all used very promiscuously. Truly speaking Meru is the Varṣa Parvata and Ilāvṛta is its Varṣa. But a study of the context in which they have been used in different places goes to show that Sumeru is generally used for the Meru and Mahāmeru and Ilāvarṣa for Ilāvṛta. Yet in practice Meru is used for both the mount and the Varṣa. Shorn of all the mystery and supernatural halo enveloping it, this region stands for that vast mountain complex of Central Asia whose central basin has its own inland drainage hemmed in as it is by its lofty extremities sending out waters in all directions forming the mighty streams of the Asia Major. Etymologically the word Meru means central place¹, such as the central bead in a rosary or the hub of a wheel from where the spokes radiate in all directions. Its English equivalent will be 'knot' as used in 'Pamir Knot'. So Meru cannot be one place but should mean a central expanse of land. A look at the modern map of Asia will show that our Meru satisfies all these ideas of the rosary-bead, wheel-hub, and knot. Four rivers of continental status are said to be issuing forth from Meru, or

1. Apte's Sanskrit Dictionary.

rather Sumeru, in four directions. This circumstance furnishes a compulsory restriction on the extent of the boundaries of Meru. On the east the sources of the Amur, Hwang Ho, and Yangtse, on the south those of the Mekong, Irravaddy, Brahmaputra, Ganges, and Indus; on the west those of the Sir Darya and Oxus, and on the north those of the Irtysh, Obi, Yenisei and Lena, delimit the extent of Meru or Ilāvṛta. Again the Mount Kailāsa and the Mānasarovara are placed on the southern limits of Meru¹, thus including the Tibetan plateau within Ilāvṛta and verifying the position of the adjacent Bhārata as a southern petal of the Meru-centric Lotus. Thus shaking off its mysterious, mythical and fabulous character, Meru emerges out as a perfect and natural reality of the Hindu Geography. On the modern map Ilāvṛta may be represented by the Chinese provinces of Sinkiang and Tibet.

The first neighbour of Meru or Ilāvṛta on its southern side is Bhāratavarṣa whose identity has mostly remained intact and unimpeachable as also of the Himalaya on its north. The Purāṇic Bhārata included² Gāndhāra on the west and the Irravaddy and Lohitā rivers on the east which shows that its limits extended beyond the present Indian Empire. Thus it included Afghanistan on its west and Indo-China on its east or to be particular the land bracketted by the Afghan lakes on the west and the Songka or Red river on the east. Indian vestiges in Afghanistan and the Brahmanic culture of Indo-China are now well-known. Again this demarcation gives the limit of the Scientific Frontiers of India.

Kimpuruṣa is the next Varṣa to Bhārata to the south of Meru. There is a great temptation of identifying the Tibetan plateau with this Varṣa, but in the light of the positions of the Varṣa Parvatas and the sources and courses of the rivers as conceived by the Purāṇas, Tibet must needs be included in Ilāvṛta. Kimpuruṣa was entered by the Hindu travellers after crossing Pragjyotiṣpura, a place given on the N. E. of India. Arjuna³ and Pradyumna⁴ both while on their Digvijaya expeditions followed the same route. So Kimpuruṣavarṣa should lie beyond the N.E. frontiers of the present Indian Empire and should be identified with the southern portion of the present Chinese Republic. We may safely take it to be as far north as the Yangtse river. The

1 Vāyu 36. 7; Mārkaṇḍa 51, 26.

2 Varāha 85. 4; Mbh. Bhis. 9. 53.

3 Mbh. Sabhā. Digvi. 26.7.

4 Gargācāryasamhitā 7.25.

Yun Lin will be its Varṣa Parvata Hemākūṭa as it is next to the Himalaya in the southern loop of Meru.

Further up this Meru loop, there will be the Tsin Ling and should therefore be the next Varṣa Parvata Niṣadha beyond which should lie Harivarṣa. Again this is correctly given as the last Varṣa on the southern loop as the Tibetan plateau almost terminates there interrupted as it is by the In Shan range. So Harivarṣa should include the land between the Yangtse and Hwang Ho or the Great wall.

The first northern Varṣa in this order is Ramyaka and may be identified with Manchuria lying just on the other side of the Khinghan, which will be its Varṣa Parvata Nīla, and enclosed by the Yablonoi on the north.

Hiranya is the middle Varṣa on the northern fringe of Meru. It must lie beyond the Manchurian Coign or Yablonoi Plateau enclosed by the tributaries of the river Lena. Yablonoi will be the Varṣa Parvata Śveta as it is a continuation of the northern ranges of the Asia Major. This Varṣa should lie parallel¹ to Ramyaka as suggested by the general grain or direction of the ranges. Physically, this Varṣa may be represented by what are called the Horst of Krasniovsk and the Amphitheatre of Irkutsk.

Uttara Kuru is situated on the north of Meru as perched on the northern end of the imaginary bow, Bhārata being on the bow's southern end. So Uttara Kuru should be that portion of Siberia which is watered by the Yenisei and Obi rivers lying just to the north of Meru or Ilāvṛta extending upto the northern² sea or the Arctic Ocean. This should be its theoretical position according to the serial order of the Varṣas. But the commanders of the Digvijaya campaigns of the ancient Hindu Emperors entered this Varṣa directly from Harivarṣa. The Rāmāyaṇa³ while enumerating the places of the northern quarter, after describing two desert places, puts Uttara Kuru there stretching upto the northern sea on the other side of a river Śailodā. The Māhābhārata⁴ recognises this Varṣa as Airāvata and Uttara Kuru is given there as a border land on the north of Meru. Yet Arjuna while conquering⁵ the northern quarter for the Digvijaya purpose,

1. Śiva, Umā 17.9

2. Vāyu 45.11

3. Kiṣ 40, 19, 28, 38.

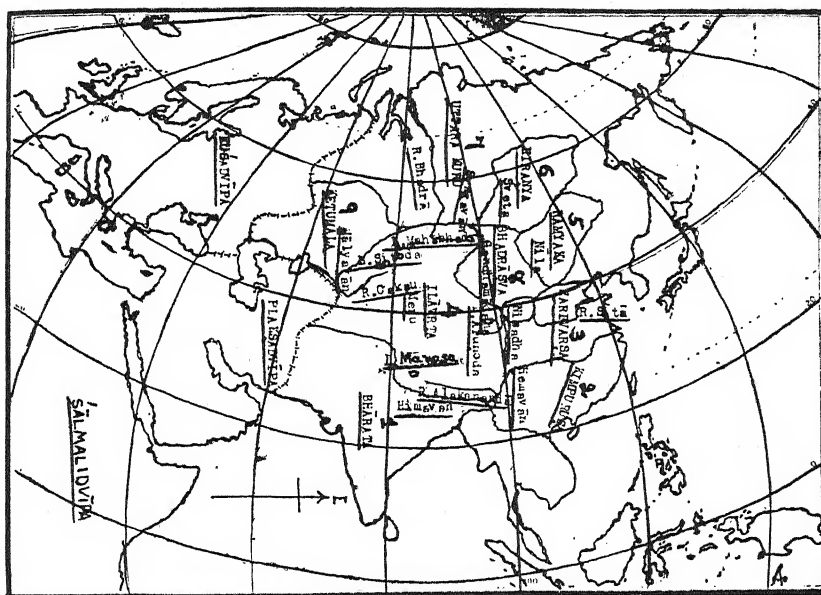
4. Bhi. 1.8.10.

5. Mbh. Sabhā Digvi. 28, 7, 11.

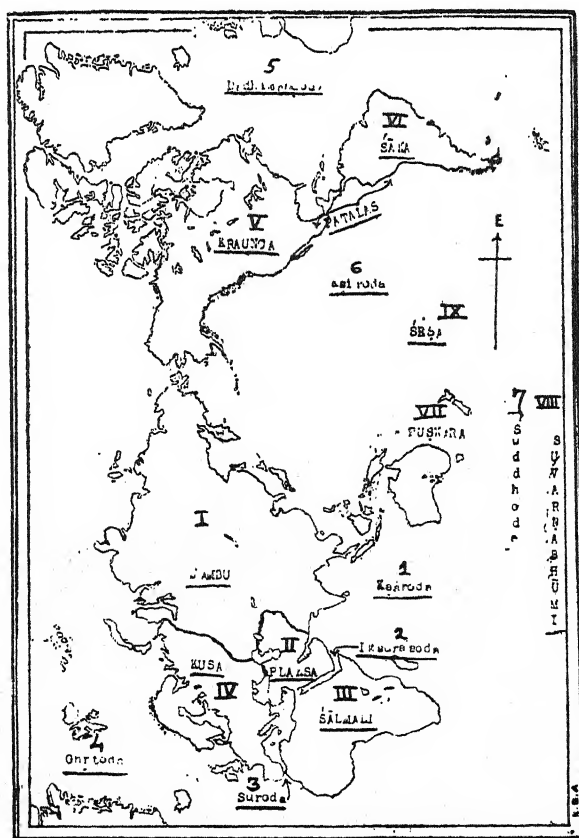
is stopped at a frontier place whence he is informed none can go further. This forbidden land is called Uttara Harivarṣa, its other name being given as Uttara Kuru. Thus Uttara Kuru is placed on the immediate north of Harivarṣa proper. In the Gargācārya Saṃhita,¹ Pradyumna the son of Śrī Kṛṣṇa on his Digvijaya march enters Uttara Kuru from Harivarṣa. All this evidence tends to show that though theoretically Uttara Kuru was on the immediate north of Meru, for all practical purposes it was reached via Harivarṣa. This means that Uttara Kuru extended from Meru or Ilāvṛta to Harivarṣa as a northern territory. And we know that Siberia is lying at present between the Urals and the Sea of Okhotsk just like that. Under the direction of this evidence Śṛṅgavān the theoretical Varṣa Parvata of Uttara Kuru should then be somewhere on the northern portion of the Altai and might possibly be taken to be the Sayan on that side. As Śṛṅgavān is said to consist of only three summits, there is no need of a range of mountains. So present Siberia is the Uttara Kuru of the Epics and the Purāṇas.

The Varṣa on the east of Meru is said to be Bhadrāśva² and Ketumāla³ by others. But the orthodox opinion⁴ is in favour of naming this Varṣa as Bhadrāśva. Also, Kuśāvati and Plakṣā, the rivers of Ketumāla⁵ on the west of Meru tend to favour this conclusion, as Kuśa and Plakṣa are the Dvīpas situated on the west of Jambu. Roughly speaking Bhadrāśva's place is occupied by the Inner or Chinese Mongolia. It must of course fill in the void left by the surrounding mountains of Altai, Khinghan, In Shan and Nan Shan so as to include the sources of the Hwang Ho as the eastern continental river of Meru flowing past this Varṣa. The In Shan should be the Varṣa Parvata Gandhamādāna which is given as lying between Niṣadha and Nila. Some doubt may be raised as to why this Varṣa⁶ should not be extended to the sea-board. The reason lies in the trend of the general direction of the southern loop of the ranges and the limit furnished by the Ala Shan, in Shan and Khinghan extensions at a respectable distance from the sea. This argument is strengthened by the

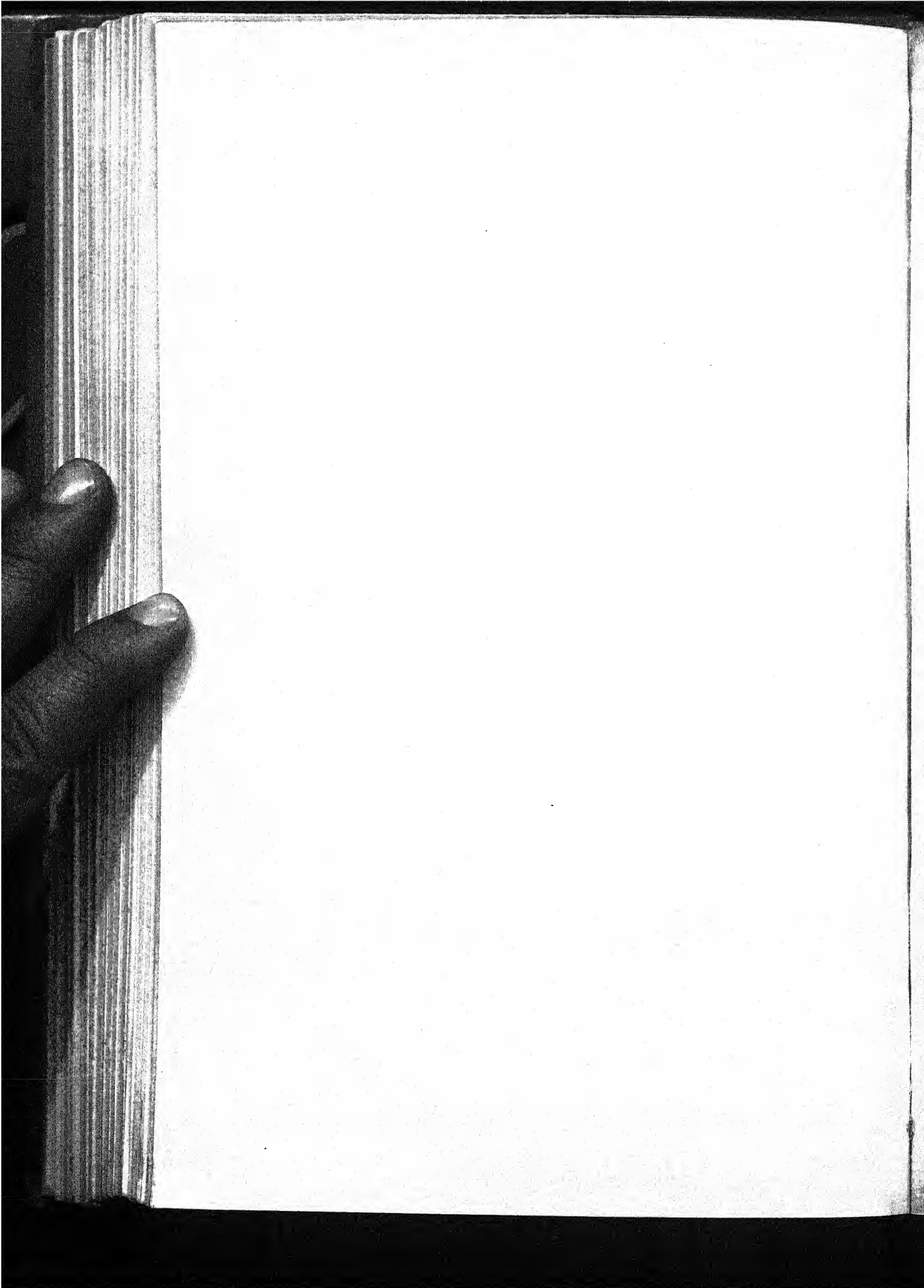
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1. Adhyāya 28.
 2. Mbh. B. 1. 7. 13-14; Bhāgavat 5. 17. 6; Śiva Umā 17. 20.
 3. Gargā. 7. 31.
 4. Apte & Dowson.
 5. Varāha 83, 1.
 6. Vāyu 36. 19.



Jambudvīpa



Saptadvīpa Prthivī



mention of mount Nisadha on the east of Meru and beyond Gandhamādāna. Again the Digvijaya conquerors are always said to be going directly from Harivarṣa to Uttara Kuru without even mentioning Bhadrāśva to cross en route. All this makes Bhadrāśva a land-locked country.

Ketumāla is the western Varṣa lying beyond its Varṣa Parvata Mālyavān. Among the rivers of this Varṣa are named the Kuśāvati and Plaksā which fact establishes that this Varṣa should be on the borderland of Kuśadvīpa and Plakṣadvīpa which are situated on the west of Jambu and identified as Europe and the Asia Minor Enlarged respectively. As all the other Varṣas have by now been allotted their respective locations on the modern map of Asia, Ketumāla is to be identified with the remaining portion viz., the Khirghiz Steppes lying between the Sir Darya and the Irtysh rivers. The Sir Darya is the only river to represent the river flowing westwards from Meru and as such the Alexander Range will be Mālyavān, the Varṣa Parvata connected with the western river. No question of a sea boundary arises as there is no sea available on this side of the Asia Major excepting the big sea-lakes of western Asia.

Having thus finished with the general semblance of Jambu and the Asia Major, we may now take some details of a miscellaneous character. Let us take the continental rivers. The Sita is said to be rising from Meru and after flowing through the eastern lake Aruṇoda, and leaving Gandhāmādāna, Bhadrāśva, and Nisadha, reaches the ocean. This can be the Hwang Ho river with the Kuku Nor as Aruṇoda. Alakanandā, after flowing past the Mānasa, the Himalaya, and the Hemakūta reaches the ocean via Bhāratavarṣa. This can be the Brahmaputra which takes a curve round the N. E. gap of India. The Cakṣu flows to the west. Here the Sir Darya is the only river to match with Cakṣu. The antecedent lake there will be the Issiq Kol to represent Sitoda. The northern river and the lake—Bhadrā and Mahābhadrā—should be on the frontiers of Uttara Kuru. Bhadrā therefore might well be identified with the Yenisei and Mahābhadrā with the lake Kos Col.

The Purāṇas fairly describe¹ the relief, vegetation, mineral wealth, and life of Jambu. For our purpose the mention of deserts and plateaus on the East,² that of desert, grassland,

1. Vāyu 37. 38; Varāha 79. 80; Agñi:108.

2. Vāyu 36.

plateaus in general and volcanoes and the Kharjūra trees in particular on the West,¹ that of abundance of gold, both mineral and riverine, on the north and south, is very important. Mongolian desert is well known on the east. The Khirghiz Steppes do exist on the West as grassland and we know of extinct volcanoes in this part of Asia and Kharjūra or date palm trees are a speciality of western Asia. As for the Tibetan and Siberian gold it is worked out even now as can be verified from any text book of geography. In this connexion the following description about the wealth of Tibet reads like a Purāṇic story:—"If the stories that Mr. Enders tells of Tibet's mineral wealth are only half true, then Lama Land must be richer in gold than even South Africa. The author tells of monasteries where the dead abbots are preserved in a solid plating of gold and sit in splendour on gold pedestals, of gold dust that lies in heaps on monastery floors. The gold is just gathered in the same way as it has been gathered for 25 centuries and more. Remember too that—'the priests hold that gold is a plant of which the nuggets are the seeds or root. The dust and spangles are the flowers.'"²

We may here note that the Jambunada gold of Meru's southern region is well known in the Purāṇas wherein they link it with the Jambu tree.³

Thus Jambu bears a strong resemblance in more than one detail to the Asia Major. It is to be noted that this knowledge of the geographical data was not derived from imagination, but it was based on the continuous intercourse both social and political. In this connexion the Digvijaya campaigns of Pradyumna as detailed in the Gargācārya Samhitā's Viśvajitkhaṇḍa⁴ are very typical and are worth nothing here. Pradyumna starts from Dwārakā on the western extremity of Kāthiāwād. He first goes to Cutch, then to Mālava, to Gujarāt and after reaching Lankā via the Western Ghats turns back via the Eastern Ghats and goes to the eastern boundary of India. Thence he takes a western sweep along the Ganges valley, reaches Gāndhāra and Kāshmir. Thence he marches eastwards along the mountain valleys of the Lesser Himalayas, to the Yakṣa country and guided by the Yakṣas reaches Prāg-

1. Mbh. Bhī. 1. 7. 27; Varāha 80. 10.

2. *Illustrated Weekly of India* of 15. 6. 1937.

3. Mābh. 46. 3. Vāyu. Bhī 1. 7. 26.

4. The whole of it.

POSITION OF VARSAS

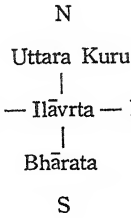
(A) Ilāvṛta is in the centre.

Bhārata is in the south.

Uttara Kuru is in the north. W Ketumāla — Ilāvṛta — Bhadrāsya E

Bhadrāsya is in the east.

Ketumāla is in the west.



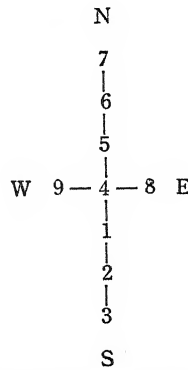
(B) 1. Bhārata } In the south
2. Kimpursa }
3. Harivarṣa }

4. Ilāvṛta — In the centre

5. Ramyaka } In the north
6. Hiraṇya }
7. Uttara Kuru }

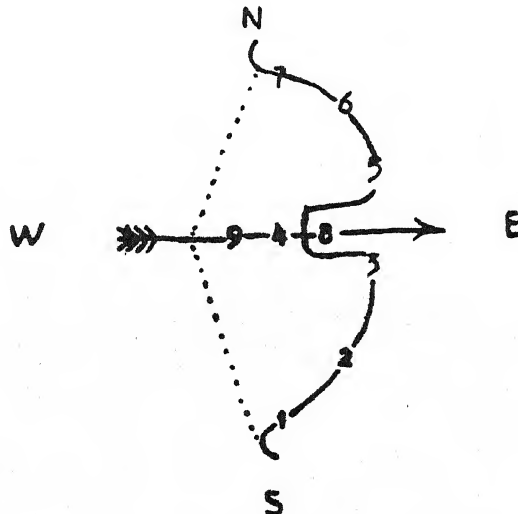
8. Bhadrāsya — In the east

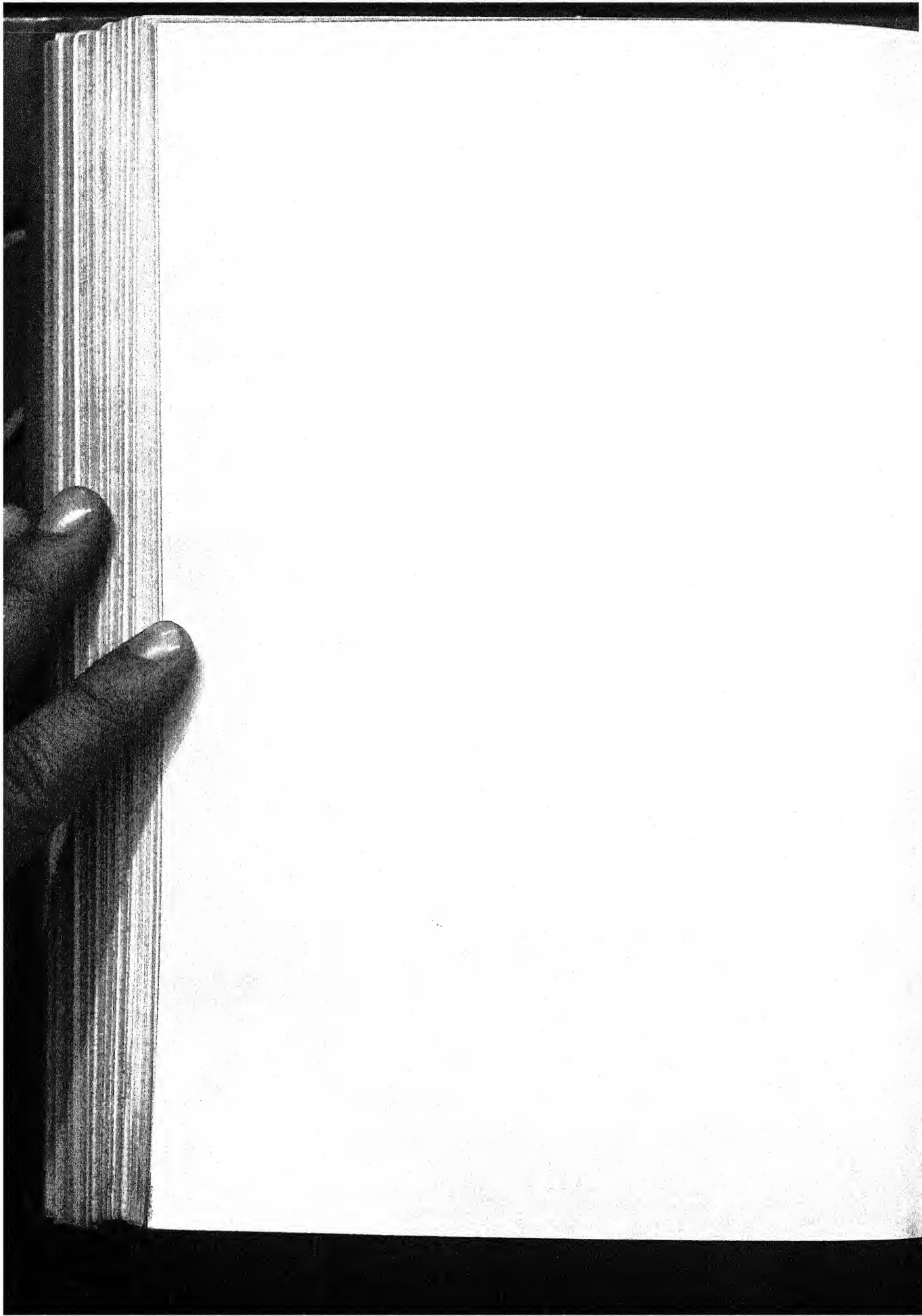
9. Ketumāla — In the west



This is an impossible formation.

(C) Possibility of a bow formation:—





jjyotiṣpura on the N. E. of India. Thence he invades Kimpuruṣa and subdues Harivarṣa and its Daśārṇadeśa. From Harivarṣa he goes to Uttara Kuru and then conquers Hiraṇyavarṣa and its provinces Makara, Diṇḍima, Simha, Kraunca and Triśṅga. Ramyakavarṣa with its Manavadeśa and Kālaśdeśa is his next objective. From there he goes to Ketumāla¹ on the east of Meru and subdues its Matsyadeśa. Thence he invades Bhadrāśva² on the west of Meru and its Candrāvati. After finishing this work there he attacks Ilāvṛta and there subdues Tapodeśa, Gandharvadeśa, and Devadeśa. Here he is invited to attend a Svayamvara gathering and is lucky enough to be selected by the bride. Immediately after this happy function he directly returns to Dwārakā in response to an urgent call, incidentally thus raising Kāthiāwād to the proud status of an Imperial Power with suzerainty over the whole of Jambudvīpa, the Asia Major of our day.

The whole description is perfect, and full of 113 pages of interesting details about Jambu. The only flaw is about the interchange of the name of Bhadrāśva and Ketumāla which is shared in common with some other treatises. But it does not matter as the order and direction of the route are as they should and could be.

Though it is probable that changes may be necessary here and there so far as the details are concerned, the foregoing discussion makes it clear that Jambudvīpa was not an imaginary Padma or lotus, neither was it a land having countries situated in a cross at right angles. It shows that Jambu can very well be identified with the Asia Major. Not only that but the Asia Major's countries are almost the same as they used to be in the Hindu times. China has kept alive the Hindu tradition and most of the Varṣas can at present be identified with the Chinese provinces: Sinkiang and Tibet with Ilāvṛta, South China with Kimpuruṣa, North China with Harivarṣa, Mongolia with Bhadrāśva, and Manchuria with Ramyaka.

1 Bhadrāśva would be correct.

2 Ketumāla would be correct.

HISTORICAL VALUE OF PAURĀNIC WORKS

By

PRAHLAD C. DIVANJI, M.A., LL.M.

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Recognised Sources of Ancient Indian History.

There was a time when our ancient political history was commenced from 326 B.C., the date of the reported invasion of the North-Western Provinces of India by Alexander the Great of Macedonia.¹ That restriction was due to the attempts made by the historians to gather the necessary materials primarily from the foreign contemporary literary records. The officers of the archaeological department of the Government of India too limited the sphere of their field-work to such sites only as seemed to them from the same source to lead to a reasonable probability of their outlay and efforts being adequately compensated for by

1. *Vide* Elphinstone's dictum and Cowell's confirmation of it in VINCENT SMITH'S *Early History of India*, Ch. I, p. 1.

the acquisition of epigraphs, coins, works of art and other relics of a past civilisation. The result was that their finds either only confirmed or modified the conclusions arrived at by the historians or filled up the gaps which they had unavoidably left.

2. Subsequently their attention was drawn to the existence of numerous historical and geographical references contained in the ancient Prākṛt works of the Buddhist and Jaina schools. They therefore tapped that source and gathered from it certain historical and topographical data concerning the political condition of India some centuries prior to 326 B.C. These data enabled them to carry back the beginning of a reliable history of India to 600 B.C., with small intervening gaps.¹

II.

Paurāṇic works not recognized as an independent source.

3. Although the historians were aware that the Purāṇas of the orthodox Indian school contained several data of the above type, they did not make an independent use of them for the reconstruction of ancient history from them for certain reasons, the principal ones among which were (1) that such data had been indiscriminately mixed up with allegorical legendary and even mythological accounts and (2) that subsequent additions and alterations seemed to have been made in most of them by religious enthusiasts.

4. Certain students of the ancient literature of India feeling that such neglect of one of the fruitful sources of Indian history was not justified, as the "Genealogies of Kings" was one of the topics dealt with in most of the Purāṇas put forward stupendous efforts to reconstruct at least the dynasties of the kings who appeared to have ruled over the principal provinces of India during the interval between 600 B.C., the accepted probable date of the accession of Śiśunāga on the throne of Magadha and the date, whatever it was, of that of Parikṣit, son of Abhimanyu and grandson of Arjuna from amongst the Pāṇḍavas, on the throne of Hastināpura. These attempts had been made between the dates of the second and third editions of *Vincent Smith's Early History of India*, a standard

1. *Ibid.* Ch. I, pp. 10-11.

work on the political history of India.¹ Yet no independent use seems to have been made in the third edition of that work of the literature on the above subject that had appeared since its second edition because the author, though convinced that "modern research has brought to light innumerable facts of the highest scientific value concerning pre-historic India" did not consider it prudent to make use of those facts for the purpose of reconstructing the history of any period prior to 600 B.C. because he was of opinion that "the impossibility of assigning dates to the phenomena discovered excludes them from the domain of the historian whose vision cannot pass the line which separates the dated from the undated."² The subsequent revised edition of that work too does not make any advance upon it because the author had died before it was thought of and the publishers did not get the services of a scholar of an equally established reputation to undertake the revision. And so it happens that the standard work on Ancient Indian History which the rising generation of university students study for the acquisition of a knowledge of the past history of this country fills their mind with the notion that an era of well-ordered civilized government did not commence in India till 600 B.C.

III.

Modern necessity to recognise it as such.

5. Students of the ancient Indian literature know too well that this is a mistaken and harmful notion. Moreover the excavations at Mohenjo-daro and Harappa have yielded several relics of an ancient civilization which goes back far into antiquity beyond the beginning or the middle of the seventh century before Christ. It is not unreasonable to believe that a people so civilized must have been living under well-ordered governments. We do not however yet know who must have conducted them. It is not enough to know that they were un-Aryans, allied to the Summerians in culture and probably Dravidians, which is all that it has yet been possible to ascertain from the said finds through the labours of Bannerji, Marshal, Stein, Heras and others. Attempts must be made to trace the political and cultural history of the races which inhabited the cities

1. *Ibid.* Preface to the Third Edition, p. VI.

2. *Ibid.* Ch. II, p. 27.

that have been unearthed and in the absence of any independent records left by them resort must be had to the class of literature signified by the term "Itihāsa-Purāṇas," which contain many references by the mystic terms "Māyā," "Vidyā" &c. to the arts and sciences of the non-Aryan races called Daityas, Asuras, Rākṣasas, Vānaras, Rkṣas, Vidyādharas, Gāndharvas, Nāgas and others.¹ It was with the help of some such Vidyās that Rāvaṇa, Marīci and Indrajit of the *Rāmāyaṇa*, Maya, Ghatoṭkaca and Babruvāhana of the *Mahābhārata* and Bhauma or Mūra, Bāṇa, Madhu and others of the *Bhāgavata Purāṇa* had erected big prosperous cities, could move above in aerial cars,² wielded extraordinary weapons, fought without being visible and performed several other extraordinary feats which caused embarrassment to their Aryan adversaries and brought them to their wit's end several times.³ The Daityas and Asuras thereout are said to have derived their extraordinary powers by way of boons from Rudra whose devotees they were.⁴ The inhabitants of

1. Ch. 67 of the *Ādiparva* of the *Mahābhārata* contains a detailed application of the theory that the Pāṇḍavas and their allies were gods and the Kauravas and their allies demons (Daityas) born on this earth. See, also Ch. 197, 38-43, wherein Dwaipāyana is said to have persuaded Dru-pada to agree to the marriage of his daughter with all the five Pāṇḍavas by visualizing to him their being gods born as men and the *Kṛṣṇopaniṣad* where the whole life of Kṛṣṇa has been interpreted philosophically.

For a corroboration of the view that the *Itihāsa-Purāṇa* literature is likely to be helpful in solving the riddle of the Indus Valley civilization, *vide* the report of the lecture on "The Dark Period of India's History," by Rao Bahadur K. N. Dikshit, Director-General of Archaeology, at the issue of 17 of the "Times of India" dated July 22nd. 1939.

2. I am glad to find this view corroborated by the note on "Flying Machines in Ancient India" by Dr. B. C. Law published in *NIA*. Vol. II. No. 1 at p. 62 wherein it is stated on the authority of *Samarāṅgaṇa Sūtrādhāra* and the commentaries on the *Dhammapāda* and *Sutta Nipāta* that aerial cars of wood of the shape of the Garuḍa bird and propelled by mercury were being made and used in Ancient India.

3. For instance see *Mbh.* III, 12-22, 288 ; V. 158 ; VII, 173-78, 107-09.

4. In *Ādiparva* 76, 52 Śukra, father of Devayānī, one of the wives of Yayāti, called the Daityas, "Raudrāḥ." According to *Sabhaparva* 14. 64-65 ; 15. 18-24 ; 22. 29, Jarāsandha had imprisoned 86 crowned princes and had been aspiring to imprison 14 more such with a view to offer them as oblation to Rudra. "According to *Harivaṃśa Parva*, 116 to 128 Kṛṣṇa had to fight with Rudra and his entourage, who had taken the side of Bāṇāsura, in order to get his grandson Aniruddha released from prison, where he had been confined by Bāṇāsura. See also the excellent article on the "Beginnings of the Liṅga Cult in India" by A. K. Sur, in the *Annals of the B.O.R.I.*, Vol. XIII, Pt. II, pp. 149-53.

Mohenjo-daro too seem to be the devotees of the same god. It is not therefore unlikely that they belonged to one of those races which are referred to in the said literature by those names and for extirpating which Rāma of the *Rāmāyaṇa* and Kṛṣṇa Vāsudeva of the *Viṣṇu*, the *Bhāgavata* and other *Purāṇas* were immortalized at first in songs and stories as heroes and protectors of mankind and later on by the *Rāmāyaṇa*, *Mahābhārata* and the *Bhāgavata* and other *Purāṇas* as incarnations of Viṣṇu. To indiscriminately condemn and ignore all the stories narrated in such works as allegories, legends and myths is to shut out one very fruitful and the only source of information as to the cultural life of India in those remote times and to plead an inability to unravel the mystery surrounding those extraordinary personages and to realize the great truth that nature could have revealed her secrets to her sons of a former age in another way than by inspiring them to invent the particular kinds of machines which in these three centuries have brought within the range of human possibility many acts which must have seemed impossible to our forefathers of the middle ages. An ancient historian cannot legitimately pass them over as unreliable on the ground that they contain subsequent additions and even alterations because it is his unshirkable duty to separate the wheat from the chaff, the essential from the unessential, from his view-point, just as it is the duty of a judge to ascertain the hard facts of a case before him on sifting the mixture of facts and concoctions placed before him or that of aspirant for the realization of the self to brush aside the sheaths of the non-selves which present themselves to his physical or mental eye. Due to that circumstance the previous account, provided it can be distinguished, does not lose its value. None can say with his hand on his heart that these works are exclusively the products of the mediæval period. They are only revised editions of the old *Purāṇas* which are referred to even in the Vedic works such as the *Chāndogya* and *Bṛhadāranyaka Upanishads*.¹

1. *Chā. Upa.* VII, 1 ; 2-4 ; 7, 1 ; *Br. Upa.* II, 4. 10. Vincent Smith relying on Kautilya's *Arthaśāstra* 1, 5, admits so far in his *Early History of India*, Ch. I, App. A. at page 23 that *Purāṇas* in some shape were considered to be authoritative writings in the fourth century B.C. He would have admitted their existence several centuries earlier if he had been aware of the above and other references in works considerably older than the *Arthaśāstra*.

IV.

How satisfactory results can be secured from it.

6. While thus advocating the use of the Paurānic literature as an independent source of ancient history, both political and cultural, I should not be understood to mean that we should take up one epic poem or one Purāṇa, collect together all the useful materials from it, put them in a chronological order and import them into history. What I do however mean is that we must make a more extensive use of one of the Pramāṇas (sources) of historical knowledge approved of by the pioneers of historical research, namely, *long continued tradition tested by the comparative method*.¹ It might naturally be asked how are we to ascertain that a particular tradition recorded in a particular Purāṇa was being handed down for a long time prior to the age of the writer who first recorded it and what should be taken to be the basis of comparison, works of foreign authors not being available for the period prior to 326 B.C. There are of course several orthodox Purāṇas recomposed from old materials at different times and probably also in different provinces. They can therefore be compared *inter se* so far as facts found in any two or more of them even with slight variations are concerned. They have already been studied in that manner by some scholars with the particular object of settling the dynasties of the kings of the Kali age. But in my view that is not sufficient for our present purpose because the province of history is not confined merely to the genealogies of kings and the descriptions of wars and conquests. It extends also to a picture of the type of culture of the races over whom those kings ruled and for whose peaceful pursuits they were supposed to create a favourable atmosphere. It would be very improper if not impossible, to gather the facts necessary for painting such a pen-picture from only one-sided writings of a religious sect, however old the tradition on which they may have been based. Fortunately for us, there exists in India a number of Jaina Paurānic works of almost as great antiquity as the present redactions of several Vaiṣṇavite Purāṇas containing facts of a certain period of old history,

1. "Tradition" has been placed first in the "Sources of Indian History" by V. Smith and for the history of the period 600 to 326 B.C., it is acknowledged to be the only source except that for some of the facts therein confirmation from Greek sources has been sought. (*Early History of India*, Ch. I, pp. 9-10).

narrated with variations, some of which are no doubt due to their own peculiar religious doctrine, mentioning the sources of their information and also in some respects more reliable than the orthodox works of the same class.¹ The facts of secular interest ascertained from the latter can be compared with those ascertained from the former, the religious colouring given by any of them or both can be eliminated and if they are found by investigation to be traceable to a common source of the same age in which the facts are reported to have occurred, there seems no reason why they should not be believed to have actually occurred and why they should not be incorporated in the history of our country. And if further the officers of the archæological departments concerned make up their minds to make trial-pits at the places indicated by them and if the results are encouraging, make extensive excavations, a link would be formed between them and the excavations at Mohenjo-daro and Harappa and our history of an age several centuries prior to the accession of Śaīsunāga at Magadha would be reconstructed, as the results of such investigations would not only corroborate certain facts ascertained from the traditional source but also fill up certain gaps left by it. For that purpose, excavations must be made even in the case of trial-pits to the depth of about 25 feet below the surface of the earth or perhaps still more as has been done at Mohenjo-daro because any remains of the

1. V. Smith says about these and other Jaina works that "they are still very imperfectly known" though he does recognise that they "also contain numerous historical statements and allusions of considerable value." (*Early History of India*, Ch. I, p. 10). I have not, however found any statement whatever made by him on the authority of any Jaina work. I am not also aware of any scholar having tried to ascertain historical facts by the comparative method above indicated so far as the period prior to 600 B.C. is concerned although there are several European and Indian scholars who have worked on these materials with a view to confirm, contradict or correct the information gathered from other sources as to the history of the period ending with that year. Since the above was written my attention was drawn to the review of work entitled *Ancient India*, Vol. II by Dr. Tribhowandas L. Shah, the tracing history of Ancient India from 900 B.C. to 100 A.D. as gathered from Jaina sources compared with the foreign wherever possible. If the learned reviewer has correctly represented its contents, that is as one-sided an attempt to ascertain historical facts from Jaina works as those already made to ascertain them from the orthodox works exclusively and is therefore bound to be criticised adversely. What I desire, is that historical facts of secular interest only, which would be acceptable to all and sundry, should be ascertained by the comparative method above set fourth,

pre-Śaīsunāga period must be at a level deeper than that at which the relics of the Buddhist period are found.¹

V.

Practical application of the method to the problem of the lives of Kṛṣṇa and Jarāsandha.

7. In order to demonstrate to my readers how the method recommended by me can be applied, I will give an illustration which is the result of my comparative study of some of the Paurānic works of both the sects, the Bhāgavatas and the Jainas, made with a view to ascertain the truth as regards the lives of three great men of the Yādava period namely, Kṛṣṇa-Vāsudeva, his mighty and most dreaded adversary Jarāsandha of Rājagṛha and his first cousin Ariṣṭanemi, the 22nd Tīrthaṅkara of the Jainas, which seemed to be important from the points of view of the political and the religious history of India prior to the commencement of the Śaīsunāga dynasty at Magadha.

(1). *Works consulted.*

8. The works, the relevant portions whereof had been studied for the above purpose, are the (1) *Mahābhārata* including its additional 19th Parva called *Harivaṁśa Parva* (2) *Bhāgavata Purāṇa* (3) *Harivaṁśa Purāṇa* of Jinasenācārya, a Dīgambara saint, and (4) *Triṣaṣṭhi-śalākā-puruṣa-carita* of Hemacandra, a Swētāmbara saint.

(2). *Their dates of composition.*

9. The *Mahābhārata* contains a distinct mention of its having been composed by somebody for recording the story told by Ugrasravā, son of Suta, to Śaunaka and others as heard by him recited by Vaiśampāyana to Janamejaya, on recollecting what he had heard from Dvaipāyana Vyāsa who had originally composed the JAYA containing 24,000 verses and

1. While I was correcting a typed copy of this paper my attention was drawn to a retrospect of a *Report on the Work of the Archaeological Survey of India*, by Sir Leonard Woolley in the issue of the *Times of India*, dated July 5, 1939. I am glad to find from it that the learned author considers that "immediate progress can be achieved in a hitherto neglected branch of archaeology namely proto-history or the study of the stone-age" and recommends that "Instead of sporadic excavations at sites which have yielded complete results, sites should be selected with the object of discovering missing links in the cultural chain," which is exactly what I have suggested herein.

taught it to Vaiṣampāyana. It is not possible to say when that nucleus, of which the *Mahābhārata* is an expanded form, was first composed but it has been ascertained that the *Mahābhārata* received its present form finally about the fourth century A.D. which means that the *Harivaṃsa Parva* thereof which is an appendix to it, whether added by the author or anybody else, formed part of it in that century!¹ The *Bhāgavata Purāṇa* too does not appear to have come down to us in its original form which seems to have existed as early as the 5th century. The form in which we now have it seems to have been given to it somewhere about the tenth century². Jināsena's work is believed by its publisher Singhai Dalichand Panalal of the Jaina Vāṇiprasarak Kāryālaya of Calcutta to have been composed in the 8th century.³ Hemachandra is well-known to be a contemporary of Siddharāja Jayasīṃha and Kumārapāla of the Silāṅki dynasty who ruled over Gujarāt and Mālwa and a part of Mahārāṣṭra in the second half of the 11th and the first of the 12th century.

(3) *Their sources.*

10. As for the works⁴ of the orthodox schools it is quite clear from the way in which old stories have been narrated to Dhṛtarāṣṭra, Yudhiṣṭhira and others that just as Vyāsa had collected the Vedic hymns, sacrificial formulas &c., he had also collected some of the popular songs and stories current in his time as regards the ancestors of the Kauravas and Pāṇḍavas and several other Brāhmaṛṣis, Rājārṣis and demons and others and made such use of them as suited his purposes. As for the

1. *History of Indian Literature* by M. Winternitz (Calcutta) Vol. 1. Sec. II. pp. 321-22, 464-65.

2. "The Date of the *Bhāgavata Purāṇa*", by B. N. K. Sarma, *Annals of the BORI*, Vol. XIV, Pts. III & IV, pp. 182-218, 218.

3. Publisher's note. According to Dr. B. A. Saletore (*Medieval Jainism*) Jināsena was one of the protégés of King Amoghavarṣa I, a Rāṣṭrakūṭa (*NIA*, Vol. II, No. 2, p. 129). This shows that the Publisher's note must be correct since according to V. Smith's *Early History of India*, Third Edition p. 753, Dāntidurga, a Rāṣṭrakūṭa chieftain had overthrown Kīrtivārman II of the Cālukya dynasty in the middle of 8th century. See also Mr. S. N. Tadpatrikar's article on "The Kṛṣṇa Problem" in the *Annals of the BORI*, Vol. X, Pts. III & IV, pp. 269-346, 276 where this work is stated to have been composed in śake 705 (A.D. 783).

4. *History of Indian Literature* by M. Winternitz (Calcutta) Vol. I. Sec. II pp. 456, 462, 466, 473; *Early History of the Vaiṣṇava Sect*, by Ray Chaudhari, pp. 30 f., 48 ff.; *JASB*, N. S. 18, 1922, pp. 269 ff.

Jainas it is definitely known that Hemacandra had taken his materials from a work in the Ardha-Māgadhi Prākṛt by Śīlabhadra named *Mahāpuruṣacarīya* and Jinasena has himself recorded that he had taken his from the original account of the Harivarṇsa recorded by Suvṛatanātha alias Sarvajñadeva, the 20th Tīrthaṅkara of the Jainas, which must have been in the same Prakṛt language and from subsequent works on the same subject by Gandharvadeva Gautama and others which too must have been in the same language. According to him these works were in existence in his time and were actually before him and what he had done was to make out a small compilation on gathering materials from all of them.¹ It is very likely that those original works in Prākṛt were like the kernel of the *Mahābhārata* based upon popular songs and stories traditionally handed down from generations in the popular dialects at different places.

(4) *Songs and stories re. the Yādavas, a common topic.*

11. One of the most popular topics of such songs and stories as were utilized by the writers of both the sets of works was the most striking events in the lives of several scions of the Yādava race. The writers of both the Bhāgavata and Jaina sects seem to have made use of them for popularising their religious doctrines.² The former were interested therein because

1. *HV. Purāṇa, Introduction* 57-67, pp. 9-10. In Sarga 41 forming part of Adhikāra VI of the same Purāṇa, the author while mentioning a difference of opinion amongst ancient writers refers to an *Uttara Purāṇa* and *Nema Purāṇa* as putting forth the view that Ariṣṭanemi was born after the migration of the Yādavas from Mathurā and their settlement at Dvārakā and to a *Nema Nīrvāṇa Purāṇa* as putting forth another that he had been born at Dvārakā but that it too had been divided into several localities each named separately after the names of the original habitats of the different groups of Yādavas residing there such as Mathurā of Ugrasena, and his group, Sauryapura of Samudravijaya, father of Ariṣṭanemi and his group, Hastināpura of the Pāṇḍavas, &c.

Mr. Tadpatrikar does not seem to have taken any notice of this independent source of the *HV. Purāṇa*. He seems to be of the opinion "that the work is adapted from the *HV.* and *Mahābhārata* together and that the story is given a greatly divergent tone by many additions and changes." (*Annals of the BORI*, Vol. X, Pts., III & IV, p. 279). This opinion does not seem to be well-founded.

2. Cf. *History of Indian Literature* by Winternitz (Calcutta, Vol. I, Sec. II, pp. 473, 475, where it is said that there were many moral narratives and sayings of which the didactic sections of the *Mbh.* are prototypes, which constituted "a literary common property" of the orthodox and the heterodox schools.

they believed Kṛṣṇa, son of Vasudeva Yādava, to be an incarnation of Viṣṇu to whom they were devoted, identified Viṣṇu with the Saṁguṇa Brahma of the Upaniṣads and pinned their faith on to the Karma-Yoga doctrine which was subsequently propounded in the *Mahābhārata* and particularly in the *Bhagavad-gītā*, which implied an observance of the Varṇāśramadharmas as a matter of duty, while the latter took interest therein not only because some of their Tīrthāṅkaras and particularly Nema-natha, son of Samudravijaya, belonged to that race but also because they believed in Kramamukti (emancipation by grades) as opposed to Sadyomukti (emancipation at a start), which required for its illustration the life-stories of all the great men that could be collected so that the different stages in the liberation of the individual soul after he definitely and resolutely commences his journey can be exemplified. Kṛṣṇa-Vāsudeva and his most powerful and dreaded adversary Jarāsandha, Emperor of Magadha in his time, were two of such great men, whose total number was, as the title of Hemacandra's work indicates, sixty-three. These are the reasons why the life-stories of Kṛṣṇa and Jarāsandha, form a common topic of almost equal importance in the works of both the sects and references to their ancestors are found in both.¹

(5) *Explicable difference between the Bhāgavata and Jaina versions.*

12. From the very nature of the above reasons it can be inferred that though the topic is common it could not have been dealt with in the two sets of works in the same manner and to the same extent and that consequently there should be two different versions of the same events in the life of the same hero and that there should be greater details as regards the same events in the one and less in the other set. The most glaring instances of the first remark are those of the incidents relating to the death of Jarāsandha and the accession of Parikṣit, son of Abhimanyu, to the throne of Hastināpura. The orthodox account of the first is that after the Yādavas emigrated to Saurāṣṭra no incident of importance had occurred so far as the relations between Kṛṣṇa and Jarāsandha were concerned but that after Yudhiṣṭhira commenced a Rājāsūya Yajña, Kṛṣṇa

1. V. *Purāṇa* III, contains a whole genealogy of Jarāsandha consisting of 16 generations commencing from Vasu and ending with Kālayavana.

once received a message from the Pāṇdavas that while other ruling princes of India had been persuaded to take part in it, Jarāsandha could not be persuaded to do so, that thereupon Kṛṣṇa went to Indraprastha, that at the suggestion of Uddhava, Kṛṣṇa, Bhīma and Arjuna went to Rājagṛha in the garb of mendicants at a time when Jarāsandha had taken a vow to satisfy the desire of every mendicant coming to his door, that there Kṛṣṇa begged for a duel with Jarāsandha, that the latter recognizing him refused to fight with him saying that he was a coward as he had fled away from Mathurā and with Arjuna saying that he was younger than him but agreed to fight with Bhīma with a club and magnanimously provided him with one, that at the end of 27 days' fight Bhīma despaired of killing his adversary, that Kṛṣṇa, who had kept himself in hiding behind a tree but was visible to Bhīma, suggested to him to tear off his adversary's body into two parts holding him by his feet and throw them into opposite directions, that he adopted the suggestion, that thus came to an end the life of the most powerful and dreadful enemy that Kṛṣṇa had met with in his life and that thereafter his son Sahadeva having sought the protection of Kṛṣṇa, the latter installed him on the throne of Magadha and returned with his companions to Indraprastha.¹ The Jaina version of this important incident is quite different. It is that Jarāsandha's daughter having come to know through a foreign merchant who had come to Rājagṛha through Dvārakā that Kṛṣṇa, the slayer of her husband, had been living in great comfort there, prevailed upon her father to proceed there and wage a war against him once more and kill him, that he accordingly collected together all his allies and proceeded towards Dvārakā with a large army, that when he had encamped at a village named Sinapalli, which was at a distance of 45 Yojanas from Dvārakā to the east, Kṛṣṇa came to know of his expedition and called all the Yādavas to arms, that the Pāṇdavas and many Vidhyādhara (kings of the hill-tribes living in

1. The above is the story as given in the *Bhāgavata Purāṇa*. It differs on some points from that given in *Mbh.* II. 17 to 24. Thus for instance Jarāsandha is there represented as having commenced a Raudra Yāga in which he intended to offer as oblations to Rudra 100 crowned heads and that for that purpose he had kept in confinement 86 ruling princes; Kṛṣṇa and his companions enter the city after striking terror, committing dacoity &c., not surreptitiously as in the *Bhāgavata* and Bhīma tears off Jarāsandha into two parts without any secret hint from Kṛṣṇa and so on.

the Vindhyā mountains) also joined him, that several battles were fought on the battlefield round about Sinapalli, that the last one was fought between Kṛṣṇa himself and Jarāsandha, that after all the other weapons used by the latter failed to deal a fatal blow on Kṛṣṇa he released his Cakra and flung it at Kṛṣṇa, that Kṛṣṇa checked its force and caught it with his right hand, that he was reluctant to fling it back at Jarāsandha and tried to persuade him to acknowledge his defeat but he would not do that but taunted and challenged him, that he thereupon whirled it round and flung it at Jarāsandha, that it went directly to the latter's neck and separated it from his trunk, that thereafter Sahadeva surrendered, was pardoned and installed on the throne of Magadha but that the territory under his sway was cut down by Kṛṣṇa to one-fourth of what it was in his father's time and the kingdoms of Mathurā and Saurya-pura and a third in Kosala were revived and placed in charge of the descendants of their former kings, and that as on the site of Sinapalli the Yādavas had danced in great glee after their victory, Kṛṣṇa founded there a new city and named it Ānanda-pura.¹

13. The orthodox version of the second incident is that after Arjuna brought the news of the death of Kṛṣṇa and the internecine struggle between the young Yādavas and their consequent annihilation the Pāṇḍavas lost interest in active life and thereupon they started upon a Mahāprasthāna (final journey) to the Himālayas on installing on the throne at Hastināpura, Parikṣit, son of Abhimanyu, who was their only surviving descendant. The Jaina version on the other hand is that while the Pāṇḍavas were living in comfort Nārada once went to the abode of Draupadī, that as she did not notice his arrival and treat him with due honor the sage felt insulted and went away to an island known as Dhātākī-khaṇḍa in the ocean called Magadha beyond the mouth of the Ganges and instigated Padma, the ruling prince there, who was a devotee of Viṣṇu of the name of Kapila, to kidnap Draupadī, that the latter managed to get her kidnapped and brought into his harem, that when persuaded to live with Padma as his queen, she asked for one month's time and began to fast, that before the month was over the Pāṇḍavas came with Kṛṣṇa as far as the sea-coast, that there Kṛṣṇa managed by his miraculous power to drive their chariots over the water as if it were land, that in the fight that ensued Padma's army was routed, that he therefore became appre-

hensive about his own adverse fate and promising to release Draupadī implored her to intercede on his behalf, that she asked him to put on the garb of her maid-servant and follow her to Kṛṣṇa's camp, that on his doing so he was saved by Kṛṣṇa and allowed to enjoy his kingdom, that on their return with Draupadī they similarly crossed the ocean but thereafter Kṛṣṇa asked the Pāṇḍavas to go ahead while he took rest under a tree, that they having an occasion to cross the Ganges did so in a ferry, which they found at the mouth of the river, but did not send it back for Kṛṣṇa as they had a desire to see how he would cross the river without it, that he, not finding the ferry there, held his chariot with one hand and swam across the river with the other, that on his reaching the other bank he had an altercation with the Pāṇḍavas, broke their chariots and went away in his own to Hastināpura, installed Parikṣit on the throne there and when Kuntī, the mother of the Pāṇḍavas, asked him where her sons should go, he asked her to advise them to go to Southern India where he held no sway, that accordingly they went with their mother towards the south after they came to know of their having been deprived of their kingdom and having founded there the city of Pāṇḍu-Mathurā began to rule there.¹ According to these writers the Pāṇḍavas do quit their new kingdom but that in favour of Jarākumāra, who had by mistake flung a fatal arrow at Kṛṣṇa and had been asked to go and give the news to them. According to Jinasena they take Dīkṣā at the hands of Nemanātha on the top of a hill called Tuṅgagiri after they meet Baladeva and perform the funeral rites of Kṛṣṇa while according to Hemacandra they and Draupadī take Dīkṣā at the hands of Sādhū Dharmaghoṣa at the time of leaving the kingdom to Jarākumāra, then set out to meet Nemanātha at Raivataka Mt. but do not meet him and hearing of his death while they were at Hastakalpapura, a town 12 Yojanas from the mountain, the Pāṇḍavas alone go to Śiva's abode while Draupadī goes to Brahmaloḥa.²

14. A fact falling in the second category is that relating to the marital life of Vasudeva, father of Kṛṣṇa. The *Bhāgavata*

1. *HV. Purāṇa* VII. 64 (Calcutta ed., p. 704), *TSPC.* IX. 12, (Bhavanagar ed., p. 163a).

A similar difference in versions between the *Bhāgavata* and *Jaina* works is to be found as regards the *Prahlāda* and *Bali* episodes also. Vide *HV. Purāṇa* IV. 20 (Calcutta ed., p. 290-95).

2. *TSPC.* VIII. 10 ; *HV. Purāṇa* VI. 52b. (Calcutta ed., pp. 537-45).

Purāṇa does not describe at length his marriage with any other girl except Devakī. However it is sufficiently clear from it that he had another wife Rohiṇī, who became the mother of Baladeva by the transfer of the 7th child of Devakī. The *Harivaṃśa Parva* mentions that he had married 14 girls one after another, that Rohiṇī, mother of Baladeva, who was one of them, was the daughter of a Bāhlika and that another, Devakī, was the daughter of Devaka.¹ The Jaina works on the other hand narrate in great details how he had married all those girls one after another while moving about from place to place, exhibiting his skill in the manly and fine arts which he had learnt and in which he was an adept.² Similar extensive details are to be found in those works as regards all the other descendants of Yadu upto the sons of Kṛṣṇa and the notable events in their lives as opposed to only casual and scattered references to them in the works of the Bhāgavata school.

6. Variants not explicable otherwise.

15. But there are variants and variants. Some of them are and some are not explicable by the reasons above-mentioned. Such for instances are :—(1) The works of both the sets agree that Kaṁsa was the son-in-law of Jarāsandha but whereas according to the orthodox works he had married two of the latter's daughters named Asti and Prāpti, according to the Jains works he had married one only named Jīvayaśā ; (2) again while both the sets agree in saying that Maruthā had been attacked by one Kālayavana just before Kṛṣṇa and the other Yādavas emigrated with all their belongings which they could carry, they differ as to who this man was, the Bhagavata works saying that he was a Yavana king in alliance with Jarāsandha and the Jaina works saying that he was one of the sons of Jarāsandha. Naturally therefore there is no reference in them to the deputation of Śālva, an ally of Jarāsandha, to persuade Kālayavana to attack Mathurā on the ground that the power of the two brothers Rāma and Kṛṣṇa had been increasing immensely and deserved to be checked, which is found in the *Harivaṃśa Parva* ; (3) *Vasudeva's* father's name was either Śauri or Vasu according to the Bhāgavata works, while according to the Jaina it was Andhaka Vṛṣṇi and Śauri was

1. *HV. Parva*, I. 35. 1-7.

2. *HV. Purāṇa* IV. (Calcutta ed., p. 306 ff) ; *TSPC*. VII. 8. According to *HV. Purāṇa*, IV. 22 the father of Rohiṇī was Mahīdhara, king of Ariṣṭapura.

only a family name meaning a descendant of Śūra ; (4) According to the *Bhāgavata Purāṇa* after Rāma and Kṛṣṇa fled from Mathurā they had taken shelter on a distant hill not named therein. The *Harivamśa Parva* says that the name of that hill was Gomanta which formed part of the Sahyādri range near the south-west coast of India and was at a short distance from Krauñcapura in Vanavāsī. According to the Jainas it was however Pravarṣaṇa which formed part of the Vindhyā range.

7. *Different versions in the Bhagavata works themselves.*

16. Nor is it a fact that the works of the Bhāgavata school had got one tradition, uniform in all respects, to go upon. Thus according to the *Mahābhārata*, Yadu, the propositus of the Yādava family was one of four sons of Yayāti of the Lunar race whom he had disinherited for disobedience on the occasion of his third marriage with a young girl although he already had two sons by his first wife Devayānī, daughter of Śukrācārya, and three by Sarmiṣṭhā, daughter of an Asura King Vṛṣa-parvā, who had given her over to Devayānī as a maid-servant and therefore followed her wherever she went.¹ According to *Harivamśa Parva*, not only was that true but it was also true that he was one of the sons of one Haryaśva of the Solar race, who had married Madhumatī, daughter of Madhu Daitya, against the wish of his elder brother and had consequently migrated to Surāṣṭra, "a province near the western sea-coast, rich in cattle of the bovine species and wealth of all sorts and inhabited by people resembling the Ābhīras."² Nīlakaṇṭha, the commentator of the *Mahābhārata* is at great pains to explain these contradictory accounts but his explanation is such that it cannot be accepted as satisfactory. Similarly the said work itself tries to reconcile the two contradictory beliefs that Vasudeva was both the 10th and the 5th in descent from Yadu and Nīlakaṇṭha, tries to make sense out of them in the same manner.³ Thirdly, while the *Bhāgavata Purāṇa* mentions only Asti and Prāpti, daughters of Jarāsandha, as the two wives of Kamsa, the *Harivamśa*, in spite of agreeing with it so far, uses the plural "Patnyah" while narrating what happened after Kamsa's death.⁴ Fourthly, the *Harivamśa Parva* is alone in

1. *Mahābhārata* I. 75; VII. 144.

2. *HV. Parva* II. 37. 30-32, 39-40.

3. *Ibid.* II. 37. 30-44 and Nīlakaṇṭha's Commentary thereon.

4. *Ibid.* II. 31. 1-37.

saying that after the invasion of Mathurā by Kālayavana, Kṛṣṇa and Baladeva had gone to the south, had met Paraśurāma there, had gone with him to Gomanta, fought with Jarāsandha who had pursued them, made an alliance with Śiśupāla and gone to Karavīrapura, killed Sṛgāla-Vāsudeva, the king of that place, and again returned to Mathurā after installing Sṛgāla's son on the throne there.¹ It is also alone in speaking of an extension of Dvārakā² and of the carrying away by Pradyumna of Māyāvati, wife of Śambara, after killing him, at the persuasion of Nārada who appears while the battle between them is raging.³ The incident of the secret marriage of Aniruddha, grandson of Kṛṣṇa with Uṣā, daughter of Bāṇa of Śonitapura, his imprisonment by Bāṇa, the subsequent battle between Kṛṣṇa who had come with an army to release him and Bāṇa and of the chopping off of the latter's superfluous hands by the former is given in brief in the *Bhāgavata Purāṇa*. But in this Parva it is described in very great details and some of those details do not tally with those appearing from the concise form in which they appear in the *Bhāgavata Purāṇa*.⁴ These differences demand some explanation and that which suggests itself to me is that the editor of the *Mahābhārata* when its form and contents were finally fixed by him about the 4th Century A.D. must have collected together the broken threads of the Kṛṣṇa legend current in some other province than the United Provinces, in which the nucleus of the *Mahābhārata* had been composed, and loosely put them together and giving them the name of a *Khila Parva* (an appendix) of the *Mahābhārata* tried to secure its preservation. This is by no means uncommon in the history of Indian literature. It was in the same manner that the *Mahābhārata* had come to have 18 Parvas, the *Bhāga-*

1. *Ibid.* II. 44 to 46.

2. *Ibid.* II. 98.

3. *Ibid.* II. 104 to 108.

4. *Bhāga. Pu.* Xb. 62-63 ; *HV. Parva* II. 116-128.

A very remarkable difference is as regards the fate of the daughter of Yaśodā, who had been substituted for Kṛṣṇa. According to the *Bhāgavata Purāṇa* X.4.8-13 Kāṁsa dashes her against a stone-slab and thereupon the Yogamāyā, who had taken that form, ascends into the sky and warns Kāṁsa of the impending danger and thereupon she acquires many names on earth. According to *HV. Purāṇa* II. 4 she again descends, is brought up by the Vṛṣṇis at the request of Vasudeva and honoured by them as a goddess. This accords with the *Durgāstuti in Mbh.* VI. 23. According to *TSPC.* VIII. 8. Kāṁsa had only cut off her nose and handed her over back to Devakī, believing that she was a harmless child.

vata Purāṇa had come to have a Pūrvārdha and an Uttarārdha, the *Yogavāsīṣṭha* had come to have such two Ardhas in the Nirvāṇa-prakarāṇa, the *Rāmāyaṇa* had grown into a work in 7 Kāṇḍas from that in 5 by the addition at different times of the Bālakāṇḍa and the Uttarakāṇḍa, which contain certain repetitions and contradictions and the *Skanda Purāṇa* had grown to be of an indefinite extent by the interpolation of Khaṇḍas within Khaṇḍas e.g. Rewākhaṇḍa within the Avantikhaṇḍa.

8. *Comparative reliability of the Bhāgavata and Jaina traditions.*

17. It comes to this then that there were two separate traditions current amongst the Bhāgawatas and the Jainas as of the history of the Yādava race, that the author of the nucleus of the *Mahābhārata* had made use of that current amongst the Bhāgawatas so far as it was necessary for his purpose, namely that of popularizing the religious doctrine of their school which considered Kṛṣṇa Vāsudeva as an incarnation of Viṣṇu, who in turn had been identified with the Saṅga Brahma of the Upaniṣads, that the authors of the Jaina Prākṛta works made use of that current amongst the repositories of their sect for exalting in the eyes of their devotees one or more or all of those whose lives were likely to serve as illustrations of their religious doctrine, that the authors of the *Bhāgavata Purāṇa* and the *Harivaṃśa Purāṇa* had each taken the necessary materials for those works from the respective works of their schools, that the author of the *Harivaṃśa Parva* had tried to preserve such broken threads of the Bhāgavata tradition as he could catch hold of from a particular province by giving them the form of a Parva sub-divided into three sub-Parvas and that Śīlabhadra and his Śvetāmbara successors in the same field had for their works made use of the materials available from the previous Prākṛt works of the Jaina authors available to them.

18. This conclusion brings to the fore a question of great importance in historical research, namely, the comparatively greater reliability of the one or the other tradition. In the present state of my knowledge I am inclined to give the palm to the Jaina tradition whenever a choice is to be made, provided, there is no room for a suspicion as to a conscious distortion. This opinion is based upon two important data that have come within my ken during the course of my study. One of them is that whereas the Bhāgavata school writers have given a doctrinal

touch to all the incidents in the life of Kṛṣṇa upto the age of 11 years after which he was escorted to Mathurā by Balabhadra, the Jainas have described them as facts of ordinary occurrence in the life of a man of that distant age born with some special gifts of nature and bred up with a view to take his proper place in the cultured society of that age. It is not possible to give even a brief summary of their description of all those incidents in this one out of the many articles in one volume but I will try to convince its readers by a special reference to the one great enigma in the life of Kṛṣṇa which has been attempted to be solved by different thinkers in different ways, namely his sports with the Gopis.¹ It must be said to his credit that the writer of a rival sect as Hemacandra was, he has not made a single statement condemning his conduct of that sort and that he has candidly recorded the fact that Kṛṣṇa was not more than eleven years old when Baladeva informed him that they were the sons of Vasudeva whom Kamsa had kept in confinement and convinced Nanda and Yaśodā of the necessity of their leaving Gokula and going to Mathura and taking part in the Mallayuddha organised by that enemy of their father.² He also records in the same chapter that Kṛṣṇa had studied the Dhanurveda and the other manly arts taught to Kṣatriya boys in those days and had also taken a training in the arts of music, dancing &c., that in these arts he had acquired a special skill and that on account thereof he had become the pet of the Gopis, that in order to get the benefit of his company, they used to organise singing and dancing parties, that at such parties Rāma acted as the stage-manager and Kṛṣṇa danced with them and that in this manner they passed their time in merriment. The account of the life of Vasudeva during his youth at Śauryapur and in the territory of the Vidyādhara after he slipped away from that town owing to his elder brother Samudravijaya having put a restraint upon his movements as some of the prominent citizens of his capital had complained to him that Vasudeva being handsome and an adept in the arts of dancing, music &c., and being in the habit of moving about freely in the town and exhibiting his skill in those arts in the public places which the women of their households used to visit, had been the cause of

1. In the philosophic interpretation of the life of Kṛṣṇa in the *Kṛṣṇa-paniṣat*, the Gopis are identified with the Rks.

2. एवं च क्रीडतोस्तत्र गोपयो रामकृष्णयोः ।

एकादशसमा जग्मुः सुषमाकालवत्सुखम् ॥ त्रि. श. पु. च. ८. ९. १६९ ॥

the women's neglecting their household duties and making their own life miserable and that while he was in his voluntary exile he was successful in winning several brides similarly trained, by virtue of his skill in instrumental and vocal music &c., goes to show that Kṛṣṇa must have inherited from his father a special aptitude for learning those arts and that the training in those arts was a part of a kind of training considered necessary in those days for the children of gentlemen.¹ That it was not considered immoral in those days for trained men and women to mix together in such gatherings as in the European society, appears not only from this account but also from the statement made in the work that Kāṁsa had to come to know of his impending death at the hands of a child of Devakī from his wife Jīvayaśā, who again had learnt it from sage Atimukta, an elder brother of Kāṁsa, who had left Mathurā since Kāṁsa seized the kingdom of that place and put their father in prison and had ordinarily been leading a virtuous life but had come to Mathurā to take part in the rejoicings due to the marriage of Devakī with Vasudeva and had been unwillingly dragged by Jīvayaśā, who was under the influence of liquor, to be her partner in dancing.² The other such difference is that those who are described as demons in the reptile and animal forms such as those of a cobra, an elephant, a bull, a horse &c., in the orthodox literature are described in the Jaina literature as only huge, wild and troublesome reptiles and animals. Similarly those powerful human beings who are described as Daityas and Asuras in the former e.g. Keśi and Putanā, who come to kill Kṛṣṇa while he was yet a baby, Śambara who had kidnapped Pradyumna, Bāṇa who had imprisoned Aniruddha and others of the same ilk, are described in the latter as Vidyādhara, i.e. to say, powerful kings of mountainous regions, the Vindhyāgiri or Vijayādhagiri, Vaitāḍhya Paravata &c., possessing knowledge of certain mystical rites which, if performed properly, conferred special extraordinary powers such as those of flying in the air in aerial cars, fighting without being visible &c. Lastly, Kālayavana, who is called in the *Harivaṁśa Parva* a king of Yavanas is described in the *Bhāgavata* as a Daitya but in the Jaina works as a son of Jarāsandha.³

1. HV. *Purāṇa* IV. 22 (Calcutta ed. pp. 306 ff) ; TSPC. VIII. 2 to 8.

2. TSPC. VIII. 2 to 8 ; Mbh. XIV. 59 (Raivatakotsava).

3. TSPC. VIII. 6, HV. *Purāṇa* III. 14-19. Vide however HV. *Parva* II. 53-54.

9. *Unique position of Ariṣṭanemi.*

19. In the above reasoning I have not referred to any incident in the life of the Jaina Tirthaṅkara Ariṣṭanemi alias Nemaṇātha because the works of the orthodox school being totally silent about him there is no scope for such a comparative study about the incidents in his life which are recorded in the Jaina works as in the two other cases. Even though that is the case I do not feel myself justified in coming to the conclusion that Jainism began with Mahāvīra only and that no man of the name of Ariṣṭanemi was born in the Yadu family. On the contrary I have reasons to believe that the Bhāgavatas and Jainas are the off-shoots of the sect, whatever its name may be, which had been in existence for several years prior to the time of the composition of the original works of both the sects, which though believing in the existence of the ancient Vedic gods, Indra and others, considered them to be subordinate to Viṣṇu, whose abode was much higher than that of Indra, and believed that it was no use performing material sacrifices for securing a place there after death, that the said object could be achieved by a life of self-discipline, purity and self-denial through the development of the inherent powers of the individual soul, both material as well as spiritual, which also put an end to the possibility of future births and their cause, the bond of Karma.¹ A mass of literature composed in the popular dialect, most probably Śaurasenī, the language of the descendants of Sūra, concerning the lives of the saints of this creed must have grown up and must have been traditionally handed down. One of the results of the teachings of this order was to create aversion for family life and when most probably after some dire calamity such as an internecine war between the Kurūs and the Pāṇḍavas, which had destroyed several Kṣatriya families, Dvaipāyana who had collected and classified the Vedic literature, tried to turn the minds of the surviving householders from the ideal of asceticism by providing an easier means for salvation, namely, Karma-Yoga founded on the Varṇāśramadharma and raising Viṣṇu, with whom Kṛṣṇ-Vasudeva had already been identified to the position of the Saguṇa Brahma of the Upaniṣads and the modification of the doctrine of Karma by that of Prasāda for the purpose of inspir-

1. *Vide Bh. G. III. to VI. and XVIII. and Mbh. XII. 1-29.*

2. *Vide Bh. G. III to VI and Mbh. XII (Adhyāyas) 1-29, 45-46, 90-106.*

ing faith in the Karma-Yoga doctrine,² there occurred a split in the ranks of the votaries of the old sect and it was divided into the two sub-sects of the Bhāgavatas and the Jainas, the former making use of all the literature of the Vedic period for expounding their doctrine along with so much of the traditional as suited their purpose, the latter continuing to ignore that literature as hitherto but carefully preserving the traditional and making additions and alterations therein in order to prove the superiority of the old ideal by placing the Tirthaṅkaras above Viṣṇu.³ As the life-story of Ariṣṭnemi occurs in the latter only, it seems at first doubtful whether he was a historical personage at all.³ But when it is borne in mind that the Bhāgavata had made use of so much only of the traditional literature as was required for illustrating their new doctrine, it seems reasonable to conclude that such a negative inference based on the absence of any reference to him is not justified. And when it is further considered that the Jainas were under a great anxiety to preserve the traditional literature as it was their only religious wealth and have in fact recorded far more details than were necessary for a religious purpose, it must further be concluded that there is every probability of the facts of a secular nature such as that Vasudeva had an elder brother named Samudra-vijaya and that he had a son named Ariṣṭanemi, having been taken from the popular songs and stories preserved by a long-continued tradition, being true to life. And when further the writers of two different sub-sects agree as to those facts and one of them states that he had taken them from one old work of very great antiquity and other subsequent ones in existence in his time the conclusion that those are hard facts of history based upon ballads and tales originally composed by persons who had personal knowledge of their occurrence becomes almost a judicial necessity in the case of all investigators of truth except those obsessed by a prejudice of a religious or secular nature. And if he lived at all, the events of his life of a non-sectarian nature, which

1. For a corroboration of the above view so far as the deification of Kṛṣṇa after his death is concerned *vide* the articles on "The Kṛṣṇa Problem" in the *Annals of the BORI*. Vol. X. Pts. III. & IV., pp. 269-346, 270 which is very comprehensive and *History of Indian Literature* by WINTER-NITZ (Calcutta), Vol. I., Sec. II., pp. 465-73.

2. I believe that the original traditional literature must have been in the Sauraseni dialect but that when the necessity arose, it was rendered into the Ardha-Māgadhī because the people who required it lived on a border land Magadha and expressed their thoughts in a corrupted form of Māgadhī.

3. *TSPC*. IX. 112.

the Jaina works, describe, must be deemed to have occurred. They cannot be stigmatised as mere myths or legendary tales.

VI.

Concluding Remarks.

20. Such being the case there is every possibility of some archæological remains of the age of these three great men of India, who lived several centuries prior to 600 B.C., being found out if a serious and sincere search is made for the sites of the following places namely, *Mathurā* of the Yādavas, which must be very near the northern bank of the Jumna opposite the old Gokula, *Sauryapura* of the Yādavas, which was at a short distance from Mathurā and was situated in what was called Kuśārtadeśa, *Girivraja* or the old *Rājagṛha* and the adjacent hills on which there still are several Jaina temples and near which there is a place called Jarāsandh-kāAkhāḍā having big foot-prints, *Kurukṣetra*, *Indraprastha*, *Prāgiyotiṣa* of Bhauma and Bhagadatta and *Śonitapura* of Bāṇa in the Gadhwal district of the United Provinces, *Giripura* at the foot of Mt. Girnār, one of the peaks of that mountain where an inscription is said to have been made on a stone-slab and a temple erected immediately after the death of Ariṣṭanemi,¹ *Prabhāsa Pāṭaṇ* *Ānandapur* or *Vadnagar*, *Hasta Kalpapura*, and *Dwārāvati* in Kāthiāwāḍ, which is not the same as the Dvārakā of Kṛṣṇa but a health-resort on the western coast of India built by King Revata, father-in-law of Baladeva, who ruled over Saurāṣṭra when Kṛṣṇa and his entourage came to settle down in that province and where they had halted before Dvārakā, which is believed to have been burnt and submerged, was built, and *Karavīrapur* and *Krauñcapur* in Southern Mahārāṣṭra. If the archæological departments of the Government of India and the States of Baroda, Junagadh and Kolhapur were to work towards that end in co-operation with one another and if the results achieved by them are gratifying, as I feel sure they will be, provided the efforts are sincere and persistent, we will not only have a political history going back several centuries beyond 600 B.C., but our histories of literature, religion and philosophy also will be provided with a solid chronological frame-work, so far at least

1. This Ariṣṭanemi cannot be identical with the one referred to in the *Sāntipāṭha* of the *Muṇḍaka*, *Prasna* and other *Upaniṣads* because he is there invoked for blessings along with the Vedic gods Indra, Pūṣan and others.

as the history of our literatures, religions and philosophical systems of the post-Vedic period are concerned, a link will be formed between those excavations and those made at Mohenjodaro and Harappa and the mystery which surrounds the relics found at the latter places will be solved to the satisfaction of all concerned.¹

1. "The missing links in the cultural chain" which Sir Leonard Woolley wishes to be forged by the exploration of fresh fields will, I fear, not be forged by at once trying to get relics of the Stone Age, between which and the Age of the Śaiśunāga dynasty there is a very wide gap of several millennia. An immediate gratifying result can, in my view, be secured by making trial-pits on the sites in Behar of Girivraja, where Jarāsandha, a contemporary of Kṛṣṇa ruled and Rājagṛha, where the Śaiśunāga Kings ruled, or that of old Dvārāvati on the western sea-coast, where Kṛṣṇa had encamped with his followers before building the island-city, or by making deeper excavations on the site of old Mathurā where he killed Kamsa and lived till he was scared away by the invasion of Kālayavana under the direction of Jarāsandha, because between Śiśunāga and Jarāsandha there is according to the Indian Paurāṇic records, a gap of a few centuries only. Once that link is established further attempts should be made to get the relics of the Age of Rāmacandra, in which the Vānara race lived in caves and fought with stone-weapons. I also feel sure that the world will not get the whole mystery of the creation solved or even be able to know the origin and evolution of the human species until the historians and archaeologists summon the Paurāṇic literature of India to their assistance.

I was very glad to know that the learned Director-General of Archaeology in India agreed with my view so far as the scope for archaeological investigation in the U. P. and Gujarat (including Kāthiāwāḍ) is concerned (*vide* his lecture on "The Dark Period in India's History," "Times of India," dated July 22nd, 1939, p. 17).

SOME EARLY GURJARA SETTLEMENTS.

By

S. K. DIKSHIT, M.A.

The name of Gujarat, it is now practically accepted on all hands is not to be derived from the Prakṛita form of Gurjara-rāshtra, as suggested in the Bombay Gazetteer,¹ but probably from Gurjaratrā, a name which we actually find in some inscriptions. Another suggestion of Dr. Bhandarkar, (who follows Dr. Bhagwanlal, Mr. A. M. T. Jackson and others) that the name came into vogue after the occupation of that particular locality by the Gurjara clan is also acceptable. But his suggestion regarding their foreign origin² and their identification with the Khazars, like that of the Maitrakas with the Mers, is to my mind unproven. Interesting as it is, it remains to be corroborated with some concrete evidence before we can accept it; and many of the tribes such as the Ābhīras, Kalachuris (a branch of the Haihayas or Chedis), Chālukyas, Sindas, Maitrakas, etc., that are regarded by Dr. Bhandarkar as foreign may with more probability be proved to be autochthonous. It is, however, vain to claim for them a pure Rajput or Kshatriya descent either.

But if at all there is some truth in Dr. Bhandarkar's contention regarding the connection of the Gurjaras with the Khazars—which seems unlikely in view of the arguments advanced by Mr. C. V. Vaidya³ whose thesis about their Āryan origin is, however, anything but tenable—then the Gurjaras, before penetrating into India, lived somewhere "between the Caucasus, the Volga and the Don". Known also as Khazirs, Chozars, Ugri Bielli, etc., they came under the sway of the Huns for the first time in 448 A.D., when Attila (434-54 A.D.) was commanding the forces of the Hunas forces. Since then, they were for long associated with that terrific race. According to the authorities⁴

1. B. G., Vol. I, pt. i. p. 2, C. V. Vaidya and D. C. Ganguly follow this older opinion.

2. J. B. B. R. A. S., XXI, 413-33; I. A., 1911, pp. 7-37; vide B. G., I, i, p. 2; E. I., XVIII, 91; etc.

3. *History of Mediaeval Hindu India*, I, pp. 83 ff.

4. *Encyclopaedia Britannica*, 14th ed., p. 362.

they were "swept along in a flood of mixed Tartar peoples" and "broke through the Persian defences of the Caucasus". In the sixth century,¹ their territory proved to be "a highway for the wild hordes to whom the Huns had opened passage into Europe." There is nothing in their history, however, that connects them with any region to the south-east of the Hindukush or with the Hūnas migrating into those regions. Their first connection with the Huns (who probably represent the western branch of the Hiongnu people, just as the Hūnas represent the eastern branch) which took place in Circa 448 A.D., *a priori* makes it improbable that the Khazars should have migrated and should have been looked upon as Kshatriyas as early as the beginning of the seventh century A.D., when Yuan Chwang refers to their king as a Kshitraya by birth.²

At any rate, one of the earliest settlements of the Gurjaras in India was that at Bhinmal, formerly known as Śrīmāla alias Bhillamāla, and referred to by Yuan Chwang² as Pi-lo-mi-lo, the capital of the Kieu-che-lo country. Dr. Bhandarkar apparently accepts the identification of Pi-lo-mi-lo with Bhillamāla in his article on the "foreign elements in the Hindu population" (published in 1911 A.D.), though he had at first vehemently rejected it in his article on the "Gurjaras" (published in 1903). He has not given any reason for this change of opinion, but it is certainly for the better. From a tradition quoted in the Prabhāvaka-charitam written by Śrī-Prabhāchandra in 1334 V. S., it appears that Māgha was a grandson of Suprabhadeva, a minister of Śrī-Varmalāta, who reigned at Śrīmāla alias Bhillamāla in Gurjaradeśa. The famous astronomer Brahmagupta son of Gishṇu) who appears to be Bhillamālakāchārya according to a colophon in his work, informs us that in 550 S. E. (=628 A.D.), a Chāpa king named Vyāghramukha was ruling

1. *Encyclopædia Britannica*, 14th ed., p. 362.

2. B. G. I. i. 3. footnote 5. *Watters* II, 249-50. For its extent this with B. J. I. i. 449.

3. 'अस्ति गुर्जरदेशोऽन्यसज्जराजन्यदुर्जरः ॥ तत्र श्रीमालमित्यासीत्युरे मुखमिव क्षितेः । चैत्योपरिस्थकुम्भालियेत्र चूडामणीयते ॥...नृपः श्रीवर्मलाताख्यः शत्रु-मर्मभिदाक्षमः । तस्य सुप्रभदेवोऽस्ति मन्त्री मिततपाः किल । तस्य पुत्रानुभाव-सावि विश्वम्भरक्षमौ ॥ आद्यो दत्तः स्फुटद्वृत्तो द्वितीयश्च शुभङ्करः ।...तस्य श्रीभोजभूषालबालमित्रं कवीश्वरः । श्रीमाधो नन्दनो ब्राह्मीस्यन्दनः शीलचन्दनः ॥'

Prabhāvaka charitam (quoted in the preface of *Nirṇayasagar* ed. Śiśupalavadham).

at Bhinmal.¹ The separate mention of the Chāvōtakas and the Gurjaras in the Nausari inscription of the Chālukya prince Pulakeśin-Avanijanāśraya need not lead us to think that the Chāpas were entirely different from the Gurjaras. The Chāpas or Chāvōtakas were probably only a branch of the Gurjaras just as the Pratihāras or Raghu family were another. The combined evidence of the traditions about Māgha the author of Śīsupālavadhā in the Bhoja-prabandha of Ballāla² and the Prabandha-chintāmani of Merutuṅga³ also supports the view that Bhīllamāla was at one time the capital of the Gurjaradeśa. Besides, Bhinmal being about 300 miles (or 1800 li) north of Fa-la-pi (Balabhi, mod. Vaḷa) as stated by Yuan Chwang exactly corresponds to the capital of the Gurjara country. Dr. Bhandarkar's suggestion⁴ that it was "the kingdoms and not their capitals" that 'were separated by this distance' is at best ingenious and is already proved to be incorrect in the case of many other countries.

Another settlement of the Gurjaras was established round about Broach, or more correctly, at Nāndipurē or Nandipura (mod. Nāndod in Rajpipla State). Dadda I, the first historical figure of this branch (unless his ancestor Mahārāja Karṇa was really a historical figure is contended by Mr. Vaidya) "resembled Vainateya (i.e. Garuḍa) inasmuch as he seized the sections of the hostile family of the Nāgas", according to the two Khedā grants of Dadda II Praśantarāga.⁵ Some Nāga tribes, according to the Mañjuśrī-mūla-kalpa, had restored to the Vindhyas.⁶ It is, therefore, not improbable that we should have here a reference to the 'jungle tribes' that were ruled by Nirihullaka as is suggested in the Bombay Gazetteer.⁷ If we are to believe Yuan Chwang, Bharukachchha-pura or Broach

1 'श्रीचापवंशतिलके व्याघ्रमुखे शकनृपाणाम् । पञ्चाशत्सयुक्तैर्वर्षशतैः पञ्चभिरतीतैः । ब्राह्मः स्फुटसिद्धान्तः सज्जनगणितगोलवित्प्रीत्यै । त्रिशद्वर्षेण कृतो जिष्णुसुत-ब्रह्मदत्तेन ॥' For 'Pratihāra = Raggu,' vide EI, XIX-75; IHθ.XIII.482.

2 'गुर्जरदेशादागत्य माघनामा पण्डितवरः'

3 'श्रीभोजः श्रीमाघपण्डितविद्वत्तां...आकर्ष्य...श्रीमालनगराद्धिमसमये समानीय etc. & 'श्रीभोजेन...भिल्लमाल इति तज्ज्ञातेर्नाम निर्ममे ॥' (quoted in Preface to Māgha.)

4 J. B. B. R. A. S., XXI, 418.

5 "वैनतेय इवाकृष्टनागकुलसन्ततिः ।"

6 'विन्ध्यकुक्षौ समाश्रिताः ।'

7 B. G. I. i. p. 115.

was probably the real capital in the reign of Dadda II, when Yuan Chwang entered his territory in c. 642 A.D. The last inscription of this dynasty is dated in 734-5 A.D. and belongs to Jayabhata III. We do not know who was responsible for the final extinction of this dynasty, which may have taken place at the hands of the Arabs under Junayd a commander of Khalif Hasham (724-43 A.D.) or of Dantidurga Rāshtrakūṭa, who had already attained dignity and prestige before 742 A.D. according to an inscription that I am editing for the *Epigraphia Indica* and who is said to have conquered many countries including Lāṭa, Ṭaṅka, Mālava, etc.¹ If we take that the principalities mentioned in the Navsari grant of Avanijanāśraya (dated October, 738 A.D.)² viz. Saindhava, Kachchhella, Saurāshtra, Chāvotaka Maurya, Gurjara, etc. are mentioned in a regular, 'topographical' order, we may possibly equate the Gurjara kingdom mentioned in this inscription with the principality of 'Barus' or Bharukachchha rather than of Ujjain or Mandor, as suggested by Dr. R. C. Majumdar;³ also by the Chavotakas we should understand those of Bailaman or Bhinmāla.⁴ It has however to be admitted that the Gurjaras of Broach seem to have ceased to call themselves Gurjaras about the time of Dadda III (c. 680-705 A.D.)⁵.

While commenting on a Sūtra of Vātsyāyana referring to an Ābhira king of Khoṭṭa who was killed by a washerman, the Jayamangalā of Yasodhara,⁶ says "Gurjarānte Koṭṭm nāma sthānam" i.e. 'there is a place called Koṭṭa on the outskirts of the Gurjara country'. I strongly suspect that this Koṭṭa is to be identified with modern Kotah (capital of the State of the same name in south-eastern Rājputana) which is a town of fair antiquity. It is true that Abiria of Klaudios Ptolemaios (the same as Iberia of Periplus) was included, along with Patalênê and Surastrene, in Indo-Scythia, which extended only up to the river Mophis or Mahî in the east. But according to other evidence, the Ābhira country seems to have extended over a much larger area including the whole of Rājputana, southern Punjab, etc. This, I hope, will be apparent from the references to the

1. A. S. W. I. V., 87-89.
2. B. G. I., i, 109.
3. *Ancient Indian History and Civilization*, pp. 363-4; E. I., XVIII, p. 93.
4. B. G., I. i. p. 467; p. 3. fn. 5; Dr. H. C. RAY's *D. H. N. I.*, I. 9.
5. B. G. I., i. 117.
6. PAUL's ed. of the *Kamasutras*, V, 517, p. 431.

Ābhīras of Pañchanada in the Mausala-parva of the Mahābhārata, to those on the banks of Saraswatī in the Nakula-digvijaya (Sabhāparva XXXII, 9-10), to those of Maru in the Rāmāyana,¹ etc. I, therefore, regard the attempt to locate the Ābhīras only at one place like Vīnaśana as abortive. The Bhāgavata Purāṇa refers to Kṛishṇa, who started from Brahmāvarta-Kurukshetra, crossed on his way the Matsya and Sārasvatas, as also Maru-dhanva, Sauvīras and Ābhīras, and reached the country of Ānarta.² The Ābhīras had thus spread far and wide. There is thus nothing that goes against the identification of Kōṭṭa with modern Kotah, which leads us to conclude that the Gurjara settlements once extended over south-eastern Rajputana.

From a story in the Pañchatantra³ it appears that there was a town called Gurjaragrāma, whence camels could be purchased. The Arab traveller, Al Masūdi informs us that the king of Juzr was "a monarch rich in men, horses and camels".⁴ We know that a camel is called Dāśeraka in Sanskrit after the name of a country called Daseraka, where it abounded. Hemachandra's Abhidhāna Chintamani⁵ and Yādavaprakāśa's Vaijayanti⁶ inform us that the Daserakas are the same as the Marus or people of Maru-country. But, I am afraid, the lexicons are rather late, and we find the Marus and the Daserakas distinguished in the Purāṇas, the Bṛihatsamhitā etc. Nay, the Dāśeraka-deśa is actually said to be to the east of the Maru country in the Uttarakanda of the Padma Purāṇa.⁷ Thus Gurjaragrāma probably lay somewhere in eastern Rajputana.

1. *Yuddhakanda*, 22-30 ff. 'उग्रदर्शनकर्माणो बह्वस्तत्र दस्यवः। आभीरप्रमुखाः पापाः पिबन्ति सलिलं मम ॥...वरं तस्मै ददौ विद्वान्मरवेऽमरविक्रमः'
2. 'ब्रह्मावर्तं कुक्षेत्रं मत्स्यान्सारस्वतानथ । मरुधन्वमतिक्रम्य सौवीराभीरयोः परान् । आनतान्भागवोपागात् ।'
3. *Fifth Tantra*, Kathā 14th. 'ततश्च द्रम्मानादाय गुर्जरग्रामे गत्वा करभाः संक्रीताः ।'
4. JBBRAS XXI, 423 ; B. G. I. i. 519.
5. IV, 22-27.
6. *Bhūmi Khaṇḍa* Śeshādhyāya. Compare the words Saindhava (horse, salt etc.), Saurāshtra (=Pañchaloha or bronze), Vaṅga (=Tin, vide *Suśruta*), Āraṭṭaja, Bāhlika or Kāmboja (Horse), Kāśmīraja (Kumkuma) etc. which owe their names to the countries of their origin or abundance.
7. *Uttarakanda*, 70, 15 : 'देशो दाशेरको नाम, तस्य भागे च पश्चिमे । तत्र विद्वन्मरुदेशः सर्वसत्त्वभयङ्करः ॥'

This is also corroborated by the Ghaṭayāl transcription of the Pratihāra Kakkuka¹ and the Daulatpurā plate of Bhojadeva,² which speak of Gujarattā and Gurjaratrā-bhūmi respectively. According to the former inscription it is to be distinguished from Marumāḍa (modern Mārvāḍ), while according to the latter it included the north-eastern part of Jodhpur round about Didwan or Didwana (=Deṇḍavāṅka). According to a Kalāñjara inscription, Gurjaratrā included Baglona, which is 28 miles SSE of Didwana (instead of to its NNE as stated by Dr. Kielhorn and others) according to Miss Bhramar Ghosh.³

An inscription of the Gurjara Pratihāra prince Mathanadeva⁴ records grant of the village of Vyāghrapāṭaka together with all the neighbouring fields cultivated by the Gurjaras. The capital of Mathanadeva seems to be at Rājyapura (Rajor in the Alwar State, in North-eastern Rajputana). This supplies an additional argument for locating Gurjaragrāma in Eastern Rajputana.

The Jodhpur inscription of the Pratihāra Bāku⁵ mentions another Gurjara settlement at Mandor (Maṇḍavyapura) which is about 12 miles north of Jodhpur. This town seems to have been formerly occupied by the Maṇḍavyas, who are mentioned no less than thrice in the 14th Chapter of the Brihatsamhitā. One of these passages mentions them along with the Medas (of Medapāṭa or Mewar; compare the Mers) and the Sālvas (identified by N. L. Dey with Alwar). This settlement of the Gurjaras in Western Rajputana was effected by the four brothers, Bhogabhāṭa, Kakka, Rajjila and Dadda, who lived ten generations before Bāuka (837 A.D.) and Kakkuka (861 A.D.). It seems to have taken place in circa 600 A.D. and may therefore be regarded as one of the earliest settlements of the Gurjaras known to Indian history. The name of one of its early members, viz. Dadda, suggests its connection with the Bharukachchha branch of Gurjaras.

Śiluka of this line defeated Bhaṭṭika Devarāja of the imperial Gurjara-Pratihāra dynasty, but his grandson Kakka seems to have accompanied Nāgabhaṭa II on his eastern campaign against the Vaṅgas. The battle was fought at Mudgagiri

1. *JRAS.*, 1895, pp. 513-21.

2. *EI.*, V, 208-13.

3. *IC.*, 1935, Jan. p. 511.

4. *E. I.*, III, 266.

5. *JRAS.*, 1895, p. 1 ff., re-edited in *E. I.* XVIII, 87-99.

(Modāgiri of the Sabhāparva)¹ or Mungir (modern Monghyr). Being a contemporary of Govinda III Rāshtrakūṭa, Nāgabhaṭa II must have come to the throne sometime before 814 A.D. the last date of the Rāshtrakūṭa prince, although the earliest dated inscription of Nāgabhaṭa is of 815 A.D. This makes the suggestion of Kakka being a contemporary of Nāgabhaṭa II all the more probable.

Nāgabhaṭa II died in or after 833 A.D. and his son Rāma-bhadra who was on the throne in circa 835 A.D. was succeeded by Bhoja, Mihira alias Ādivarāha in or before 836 A.D. according to the Barah grant issued from Mahodaya.² Despite this quick succession, the star of fortune of the imperial Pratihāra dynasty was probably ever in the ascendance during the reign of Bhoja and Mahendrapāla; and we have no reason to suppose that the Mandor branch represented by Kakkuka had acquired their independence. It is argued by Dr. R. C. Majumdar that there was a temporary revival of their power, as the "Daulatpurā copper plate of Bhoja, dated in the year 843 A.D. records the grant of a piece of land situated in Gurjaratrā, but the Ghatayāl inscription of Kakkuka refers to the province as being held by that king. As this inscription is dated, in 861 A. D., Bhoja must have lost this province, between these dates". I am afraid, this is untenable. Bhoja was capable of attacking even the distant Vaṅgas, and the feudatory princes could certainly bestow on worthy Brahmanas small portions of their land without any reference to their overlord. It is, therefore, not necessary to assume that Kakkuka acquired independence.

The imperial Pratihāras first settled probably at Ujjain and began to assert themselves during the reign of Devarāja who was perhaps defeated by Śiluka in his effort to obtain suzerainty over Rajputana and Malwa. This defeat however did not deter his son from fighting with the Bhaṇḍi (Bhaṭṭi?) clan, and he came into conflict with the Rāshtrakūṭa and Pāla emperor in his struggles for the possession of Kanauj. This conflict seems to have been maintained—with brief intervals—up to the end of Mahāpāla I alias Herambapāla's reign (between 942-46 A.D.). It has been often suggested that their ancestral abode Ujjain was molested by the elephant troops of Indra III. But I confess that in my study of the topography of Ujjain, I

1. Chitraśālā Press ed. XXX, 21.

2. E. I., XIX, 15-19.

have not been able to find a single passage where Mahākāla is dubbed as Kālapriya; whereas a passage in the Kāvyaṃmāṃsa¹ should decisively prove that Kālapriya is modern Kālpi. The fort of Kālpi seems to have attracted attention of some Muslim aggressors even in the early 15th century.² In fact, Ujjain seems to have been from the beginning in the hands of the Pratihāra branch of the Gurjaras, directly or indirectly, down to circa 946 A.D.³ except perhaps for the sporadic excursions of the Rashtrakūṭas.⁴

1. G. O. S., Vol. I, p. 94.

2. J. B. B. R. A. S., XXI, 359.

3. DHNI., I, 586. I have purposely not referred to the Gurjaras of the Harsha Charitam (Nirṇaya-Sāgara Press, 5th ed., p. 120) and the Aihole inscription of Satyāśraya-Palukeśin, as both of these references are rather general and controversial i.e., these Gurjaras can not be located anywhere with any amount of certainty. In both these cases, they are distinguished from Lāta. Are we, therefore, to suppose that they do not refer to the Nāndod family, which was of course reigning in the province of Lāta? Mr. Aiyer in his *Ancient India* (p. 369) refers to the Gurjaras found in a Tamil work called Maṇimekhalai, which he ascribes to the 3rd century A.D. I am unable to ascertain whether the passage is a later interpolation or the work does not really belong to the 3rd century A.D. I would be obliged to be enlightened on this point.

4. I. A. XII. 164. AlBeruni's India (I. pp. 202-205) 'Bāzāna, the capital of Guzarat.' This town was also called Nārāyan, and has been identified with Narayanpur (Alwar State, Rajputana). I suppose it can more probably be equated with Naraina (Jaipur State, Rajputana), which is still a flourishing town about 70 miles south-west of Bairat. One does not know whether this was not the capital of Alkhāna Gurjara, mentioned in the Rāja Taraṅgiṇī (V. 149ff). For Alakhāna Gurjara, vide Cunningham's *Ancient Geography* (1871) p. 179; H. C. RAY'S *Dynastic History of N. India*, Vol. I. pp. 72-74; 118-119.

HISTORICAL AND ARCHÆOLOGICAL RELICS IN THE IDAR STATE.

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The wave of keen desire for historical and archæological research originating in Europe, also extended to the East and activities in that direction have led to very good results in unearthing proofs of the ancient culture of India which had influenced the territory extending from the Red Sea to the Chinese Sea and we see ancient monuments bearing the stamp of that culture everywhere in this area and even beyond.

We find today, not only the Archæological Department of the Government of India but also all the prominent Indian States taking great interest in historical research and the preservation of old monuments, and great museums have been built all over India for housing beautiful and important relics of ancient culture, civilization and art. Large publications by eminent archæologists on the ancient history, art and culture of India are coming out from day to day as a result of this awakening.

Activities of the Idar State in that direction date from only 1934, when the present Maharaja Shree Himmatsinghji Saheb who is a great lover of old history and art, granted permission to open the Department of Archæology in the State.

Investigations, made since then, have been embodied in a small publication entitled "Some Archæological Finds in the Idar State" which, besides giving first-hand information about the ancient monuments, relics of art, idols and inscriptions in the State, contains 56 photographs of these relics and also an outline map of the Idar State for the facility of the reader and the tourist.

The territory of Idar is situated on the North-eastern side of Gujrat and on the southern side of the Aravali ranges which thus form a natural boundary on the north. Many smaller hills traverse the northern part of the State and rivers like the

Sabarmati with her tributaries the Sai, the Harnao (Harinakshi), the Hathmati and the Meshvo, the Vatrak, the Mazam etc., have made this portion very beautiful and fertile and the forests are full of flowers, fruits and other forest wealth.

So this portion must have been inhabited from the ancient times as valleys between big rivers are always chosen for habitation, as such land is fertile and abounds in fruits, tubers and animals. Moreover, being hilly it affords natural protection and it seems therefore, that this territory was in a flourishing condition also for a long time, and so relics of great cities, large temples, big step-wells etc., are found scattered all over the territory. In the jungles, in far away corners on hills and such other places wherever one may go, one comes across some relics. I think no other part of India has such an abundance of ancient monuments and old relics. It could be safely inferred, therefore, that this territory enjoyed happiness and prosperity and quiet life for a long time.

Of course, in ancient times, Idar was not separate from the adjoining territory as it is today. It was a part and parcel of a big province. And it is so placed by nature that in ancient times highways from Marwar, Rajputana, Malwa and other parts of Northern India to affluent and flourishing Gujrat, lay through this territory. Through the Sabarmati valley and the valleys of her tributaries and through the passes of the Aravali ranges, there were good ways leading to this side and many of these are still in use. So this territory was inhabited from olden times. Similarly it was this territory which had to bear the onslaught of all invading people. And as the way lay through the Sabarmati valley, very few relics, and these also in a much ruined condition, are found on the banks of this river. There are many more relics and comparatively in a better condition, on the banks of her tributaries, the Harnao, the Hathmati and the Meshvo.

Idar was styled Ilwa-durga—stronghold of Ilwan—a demon who had made this territory his home. He and his brother Vatapi, laid waste the territory by their cannibalistic propensity and Agastya had ultimately to destroy them.

Then this territory was included in the Hidimb-van-forest of the demon Hidimb—and it is said that a mighty demon was staying on the banks of the Meshvo. And as if to give this legend an appearance of truth, a big skeleton of human bones was found while digging in this part on the banks of the Meshvo. This skeleton was not intact but the shoulder blade

(scapula), some ribs, thigh-bones and shin-bones are found and the position at which these bones were found, shows that the skeleton might belong to a being about 15 to 18 feet high. The bones resemble human bones and not those of an animal, but expert opinion is not yet solicited on this point and so nothing definite can be said till then. But as there were huge animals in pre-historic times which do not exist now, it might be possible to have such big human beings or demons also. So these bones are preserved in the Museum at Himmatnagar as demon's bones, Old people say that a scull as big as a big earthen pot, was found at that place and people take away bits of these demon bones and preserve them in their houses as a charm against ghosts. These bones powdered and mixed with oil are also used as ointment for wounds.

Great Rishis stayed at various places in this territory for long periods. Bhragu had set up his Ashram at Khed-Brahma and Chyavan at Bhavnath. Bhragu also performed sacrifices at Bhavnath and the sacrificial pit by entering which Chyavan was rejuvenated is still to be seen as a small reservoir in which lotus flowers grow and where lepers still bathe to cure themselves of the malady.

Idar—former capital of the State—was ruled by Venivatsaraj at the time of Mahābhārat and he had married a Nag princess. According to Bhavishyottar Purāṇa his time is given as 2322 years in the Kali-yuga or B.C. 2742. श्री ईत्व दुर्गे नृप वेणी वत्स, बभूव भूपाल मणी समेव । रहीज भूमौ मधवावतार, गतेकली द्वीभूज अग्निनेत्र ॥

In the 6th century Grihaditya, son of Shiladitya, the last Vallabhi king, established himself at Idar and his descendants ruled over Idar for nearly 200 years. In A.D. 716 Nagaditya, the eighth king of this line was killed by the Bhils and they ruled over the territory for about 175 years. The Parihars from Marwar took possession of the territory by the end of the 9th century and ruled for nearly 300 years. The last chief of the line, Maharaj Amarsinghji, was killed in A.D. 1193 with his followers, while fighting against Shahbuddin Ghori at Thaneshwar on the side of Prithviraj Chohan. His Bhil minister Hathi-sod and his son Somalio-sod, ruled over the territory for a short time. But Somalio-sod was killed by Rao Sonigji—a great grand-son of Rao Jaychandra of Kanoj in A.D. 1246 for aspiring for the hand of the daughter of his Brahmin minister. The marriage song अमे इहरीयो गढजीत्यारे आनंदमला which is still sung by Nagir women, reminds us of the event.

The Rao-Rathors continued to rule the territory upto the end of the 17th century. The last of the Raos, Rao Chandra-singhji, left Idar and went to Polo for protection against his own nobles and thus there was practically no ruler in Idar for some time. In A.D. 1731, Anandsinghji and Raisinghji brothers of Maharaj Abeysinghji of Jodhpur, made themselves masters of the territory and since then it is in the possession of their descendants.

From the fourteenth century, Mahomedans had begun their rule in Gujrat and some part of the Idar territory was also in their possession. So this territory had to submit to the good or evil consequences of the rule of the different dynasties and peoples in whose possession it had passed from time to time. For these reasons very few relics, and these too in a badly ruined condition, are found on the banks of the Sabarmati, as the Sabarmati valley was the main road for entering Gujrat. But on other rivers, mainly its tributaries, there are some relics and in good condition too. In Poshina on the river Sai there are relics of a Surya temple and a Shiva temple. On the Harnao in Polo, there are relics of many Shiva temples (Sarneshwar and others), arches, pillars etc., and so many Jain temples, and in Khed-Brahma there is the Brahmaji temple, the Pankhnath temple and a fallen Surya temple. Besides these, there are innumerable small fallen temples.

Between the Harnao and the Hathmati, comes Vadali mentioned as Vata-palli in thirteenth century inscriptions and Ochhali by the Chinese traveller Hiuen-Tsang who visited India in the 6th century. There are some very old Shiva temples, a Surya temple and some Jain temples at the place. The Mandap of the Vaidnath Mahadeo temple was renovated and rebuilt in A.D. 1208, according to the inscription at the place.

Idar, which also is situated between the Harnao and the Hathmati, possesses some old monuments but of a later period i.e. after the 14th century.

Then there is the Hathmati valley, and right from the source we have monuments on her banks at Bhiloda, Bhavnath, Roda (near Khed-Chandarni), Himmatnagar and Kotyark. Many of these monuments are in a very good condition and belong to quite an early period.

In the Meshvo valley we have the famous group of Sham-laji temples and the valley is full of mounds of bricks and even upto 30 feet deep, large size bricks are found. Wells, step-wells

and houses built of bricks are unearthed while digging for bricks.

In these monuments and relics, so far found, none is of pre-Budhistic or even of Budhistic age. Almost all the monuments i.e. temples, step-wells, Kundas, tanks etc., are of later times. Only a few idols belong to the 3rd or 4th century. Relics having no religious importance are usually destroyed and used by people for building houses etc. Temples, polluted by fanatics meet the same fate. Bricks could be readily used, so ancient brick structures are rarely to be found in a well preserved condition. Most of the buildings at Shamlaji and in the neighbouring villages also, have been built of bricks dug-out from the mounds at Shamlaji. At some places it is seen that a temple of one faith is used by people of another faith as their place of worship by installing their idols and making some necessary changes. But generally there was much respect for places of worship belonging even to people of different faiths. But since the onslaughts of the Mahomedans, most of the idols and innumerable temples were destroyed and the material was used in erecting other buildings. So also, many relics disappear when railway lines and roads are built or a canal is dug. At many places, thieves have destroyed idols and their pedestals and dug deep pits to remove the treasure that is usually buried under the idol. This is the case, especially, with temples on hills, in forests or at other lonely places. But many relics still exist which have survived all these onslaughts and so it is really amazing to see how many monuments there must have been in this part of the territory, especially, temples and step-wells. So it seems this territory must have been in a very flourishing condition more or less right from the Pauranic age to the 15th century, and so must have been the abode of civilization, culture and art and hence there is every possibility of finding even some pre-historic relics and it is very likely that excavations at Khed-Brahma and Shamlaji may reveal these some day.

The existing relics consist of idols, temples, step-wells, Kunds, Palia-stones and inscriptions. It would be beyond the scope of this article to give a detailed account of even the most important of these, but an attempt will be made just to give an idea of the unique nature of some of these and their importance.

Idols from the 3rd or 4th century right upto the 14th century are found. Out of these 3 or 4 are quite unique.

Virbhadrā-Shiva, Parvati in the garb of a Bhil woman, Shiva and Parvati with the infant Ganesh in her arms, a standing Bal-Ganesh, an Ek-mukhi Shiv-ling, and an idol which is called Anant-Brahma but really is an enigma even to archæologists and econographists, as it is not decided what deity is depicted, are some of these. Besides these there are the Matrikas and various other idols on the temple walls, pillars etc., in enchanting poses and all beautifully carved. There are two or three dancing Ganesh figures carved on walls of different temples. The idol of Brahma at Khed-Brahma is about 6 feet high and perhaps the only big idol of Brahma in the whole of India.

Then there are innumerable temples big or small, out of which the Shamlaji temple, built in the 12th or 13th century, is the most beautiful. It is in the Chalukyan style and has very beautiful carvings and figures on the walls and on the ceiling under the dome. Of the other temples, mention may be made of the Brahmaji temple at Khed-Brahma, also belonging to the 12th century, or even to an earlier period. Another thing worth mentioning is that there are about 7 or 8 Surya temples distributed all over the territory, right from the North at Posina to Shamlaji, including all the places like Khed-Brahma, Vadali, Roda, Bhavnath etc. Surya temples are quite rare otherwise. The Shamlaji temple is just on the lines of Belur and Halebid temples in Mysore State. The spires of some of the temples at Roda are unique.

There are many step-wells in the State. Every place of some size has one or more step-wells. 2 or 3 of these, one at Limbhoi near Idar, one at Idar itself, and one at Khed-Brahma, are of rare types. These costly wells are built by people of various communities like the carpenters, iron-smelters, Nagirs, Brahmins, Baniyas, Barots, and others. There are some built by women also. There are about 12 Kundas, the one at Roda with temples at four corners inside, and one at Pratap-gadh. are very nicely built.

There are hundreds of Palia stones or hero commemoration slabs all over the State, but they are much more abundant in the north and in Polo territory. Some of the heroes have lost their lives in defending the cattle of the village, some while protecting the village from robbers and so on, and the memory of their sacrifice and their selfish service to the cause of the community, is thus perpetuated. There are several Sati stones and

stones on which gifts of land to temples and individuals are inscribed.

There are also many inscriptions dating from the 5th century to the 17th.

Thus this territory, which abounds in monuments of all types from the 4th or 5th to the 17th century, it seems, was inhabited right from the Pauranic age and enjoyed a more or less prominent and important place in this part of the country.

NON-VEDIC ORIGIN OF VAISHNAVISM.

By

D. R. BHANDARKAR

Vaishnavism is now-a-days looked upon as an integral part of the Aryan culture established in India to such an extent that it is considered well-nigh blasphemous to think it otherwise. Nevertheless, the question arises: how is it that Buddha, the founder of Buddhism, and Rishabhadēva, the originator of Jainism, were considered incarnations of Viṣṇu? Thus Buddha is mentioned as an incarnation of Viṣṇu in the Varāha—, the Bhāgavata—, and the Agni-Purāṇa. But we do not know when exactly these Purāṇas were compiled. On the other hand, the well-known lines of the Bengali poet-saint, Jayadēva, are important in this connection, first because he admits that Buddha, as an incarnation of Viṣṇu, was instrumental in stopping animal sacrifice and broadcasting the doctrine of *kāruṇya* or compassion and secondly because he was a poet in the court of the Sēna prince, Lakshmaṇasēna, who flourished about the middle of the twelfth century A. D. As regards Rishabha, he is mentioned as the son of Nābhi and Merudēvī in the Bhāgavata-Purāṇa (V. 3 & 4) which leaves no doubt as to his being the first Tirthaṅkara of the Jains. Again the same Purāṇa (III 5. 20) says that Bhagavān Viṣṇu, to do good to Nābhi, incarnated himself in the womb of Mērudēvī. Nay, Kṛishṇa himself, from whom the Bhagavadgītā, the Vaishṇava scripture *par excellence*, has emanated, was according to the Jaina accounts a cousin and pupil of the twenty-second Tirthaṅkara, Neminātha. The cardinal teaching of Jainism as of Buddhism was *ahiṃsā* 'abstention from injury to creatures.' This was also the cardinal doctrine of Kṛishṇa and Vaishnavism. The strong presumption arises that like Buddhism and Jainism, the Vaishnavism of Kṛishṇa also was originally a Śramaṇa religion. Nay, it is worthy of note that the Bhāgavata system connected with Vāsudēva was for a long time looked down upon, as being opposed to the Vedas. If any proof is required, it is supplied e. g., by a passage from Śaṅkara's *bhāṣya* on the Vēdāntasūtra (II. 2.45). It runs thus: *Veda-vipratishedhaś = cha bhavati Cha-*

turshu Vedeshu param śrēyo = Śābdhvā Śāṇḍilya idam śāstram = adhigatavān = ityūdi – Veda-nindā-darśanāt. “There is also opposition to the Vēdas. ‘Not finding supreme bliss in the four Vēdas, Śāṇḍilya studied this (Bhāgavata) śāstra’—such revilement of the Vēdas is noticeable (in it).” It will be seen that upto the time of Śāṅkara the Bhāgavata system was considered to be opposed to the Vēdas. Quite in consonance with this is the fact that the Bhagavadgītā also comprises disparagement of the Vēdas (see e. g., II. 45; VI. 44; IX. 21, and so forth.)

A HISTORICAL HYMN OF THE ṚGVEDA (RV. VII, 33)

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Among the scanty material of historical importance afforded by the Ṛgveda, its notices on the *Dāśarājña*, "the Battle of Ten Kings," stand out refreshingly with the reliability of first hand evidence. As, however, these notices lie embedded isolatedly, often by way of allusions rather than connected statements, in the various hymns of the Ṛgveda, it is necessary to bring them together with a view to preparing, after a critical textual study, a co-ordinated account of the Battle. Three whole hymns : RV VII, 18 ; 33 ; and 83 ; and certain other stanzas, e.g. I, 53, 9 ; VII, 19, 7-8 ; 60, 9 ; deal, directly or indirectly with the *Dāśarājña*.¹ Here, in the following lines, is presented a textual study of one of these historical hymns, namely RV. VII, 33.

The hymn, which is devoted to the glorification of the ancestor, occupied the same place at the end of the Indra series VII, 18-33) as does III, 53. According to the *Anukramanī* and *Ṣaḍguruśiṣya*, the hymn contains mutual praise of Vasiṣṭha and his sons, to be explicit : in the first nine stanzas, Vasiṣṭha praises his sons, and *vice versa* in the last five ; or it might be a discourse with Indra. The truth lies in the middle. One of the Vasiṣṭhaite, as a spokesman of the whole family, proclaims in the presence of his father the latter's glory and, indirectly, that of latter's progeny. Indra himself intervenes and supplements the story of the Vasiṣṭha (sts. 1 and 4). In st. 4 Indra addresses the sons of Vasiṣṭhas ; in sts. 3, 4 and 8 the Vasiṣṭhas, and in its 10 and 11 the ancient Vasiṣṭha, are addressed. The last stanza (14) is spoken by Agastya.

1. Cf. *Maitr. Samh.* III, p. 40, 6 ; *Jaim. Br.* III, 244 ; *Tāṇḍ.* XV, 3, 7. The persons mentioned in these texts are different : the Purohita is Bharadvāja ; the encircled king is Divodāsa (*Tāṇḍ.*), or Pratardana (*Maitr. Samh.*), or a son of the latter (*Jaim. Br.*). Cf. Patel, *Die Dānastutis des Rigveda*, Leipzig (1929), pp. 47 f.

The *first part* (sts. 1-6) of the hymn is devoted to the main action of Vasiṣṭha, namely the rescue of Sudās¹ in the "Battle of Ten Kings" (sts. 7 and 18) ; the second part (sts. 7 and 14) deals with his personal qualities. First of all, it is intimated how the Vasiṣṭhas met Indra at a Soma-sacrifice, and he promised them his help (st. 1), how they invoked and invited Indra at the great Soma-offering on the battle-field (st. 2) and how he thereupon personally turned the course of the battle to the advantage of Sudās (sts. 3-6). The *second part* describes first of all the omniscience (st. 7) and the sacerdotal supremacy (st. 8) of the Vasiṣṭhas, and then goes to describe the divine origin and supernatural birth of Vasiṣṭha. Owing to their intuitive insight they have recognised this origin and worship the Apsaras as their ancestral mothers (st. 9). Vasiṣṭha's birth was a double one : the first one is wonderful and divine as he was born of Urvaśi by Mitra and Varuṇa (sts. 11-13) ; the second one as Agastya brought him up to manhood (st. 14).

Now follow my translation and Notes verse by verse :

Stanza 1 :

(Indra :) "The white-skinned (or clad), with hair braided on their right side, awakeners of (pious) thoughts, have indeed come (far from their home) on a pilgrimage to me. While rising from the *Barhis*, I announce unto these men : I cannot assist my Vasiṣṭhas from afar (i.e. I cannot remain far away when they need my help) ".

Notes :

All the stanzas are composed in Triṣṭubh metre.

The situation is already hinted at in VII, 18, 21, and will be explicit from st. 2. Indra wanders far away at a Soma-sacrifice, performed by Pāśadyumna. There appear the Vasiṣṭhas, with the purpose of taking him (cf. *anayan* in st. 2) to the succour of Sudās. Indra at once declares his readiness to rush with the Vasiṣṭhas to help Sudās.

1. King Sudās, with his army, was encircled by ten allied kings. He could only beat a retreat through the Paruṣṇī river. This he could attain through Indra's help. The enemies ran through the banks of the river with a view to destroying the retreating foe, but were themselves caught in the floods of the overflowing river. . Whosoever could escape being drowned in the river, was killed by Indra or Sudās. Thus the battle was won by Sudās.

a : Cf. VII, 83, 8c. They are the Tṛtsus, i.e., the Vasiṣṭhas. According to Sāyaṇa *śvityāñcaḥ* means "white-coloured"; it may mean "white-clothed" in view of *dakṣiṇatāskapardāh*. As regards the Vasiṣṭhas' matted hair, cf. *Gṛhyasamgraha* II, 40.

Stanza 2 :

From afar did they bring Indra here with the help of their (own) Soma, to the strong (Soma) drink which would fill a pond. Indra preferred the Vasiṣṭhas to the pressed-out Soma of Pāsadyumna Vāyata.

Note :

Indra starts along with the Vasiṣṭhas ; cf. st. 3.

b : *Vaiśantām* here taken as an adj. Or, is it (along with *pāntam*) a name of another Soma-sacrificer ?

Stanza 3 :

Thus indeed along with you, did he at once cross the Sindhu ; thus indeed along with you, did he at once strike *Bheda* ; thus indeed did Indra at once help Sudās in the Battle of Ten Kings, on account of your prayers, O Vasiṣṭhas !

Stanza 4 :

(Indra :) "Out of preference for your ancestors, (and) through their prayer, O men, have I tied the axle round. 'You shall certainly not come to grief' (thus I said) when you Vasiṣṭhas encouraged Indra with a loud roar in the *Śakvarī*-stanzas."

Notes :

b : With *ākṣam Avyayam* cf. X, 85, 12b. The following words are Indra's without *iti*, cf. X, 48, 5 ; 94, 10.

c : *śākvarīṣu* : the group of stanzas to be sung in battles. Sāyaṇa (on TBr. II, 4, 3, 1) would refer to X 133, which begins with the *Śakvarī*-metre and which is ascribed to Sudās.

Stanza 5 :

In their affliction those who were encircled in the Battle of Ten Kings, like those parched with thirst, looked heavenward. Indra listened to the praising Vasiṣṭha ; he made for the Tṛtsus an open way.

Stanza 6 :

Indeed like sticks for driving cattle were the weakling Bharatas cut off. As Vasiṣṭha was their leader, the clans of the Tṛtsus spread themselves.

Stanza 7 :

Three create the semen in the worlds ; there are three progenies who are led by the Light. Three glows follow the Uṣas : all this indeed the Vasiṣṭhas know.

Note :

Here is a play of words with the number 3. The stanza is one of the number-riddles as the Vedic poets often fondly set ; see Geldner, *Rigveda in Auswahl*, II, p. 109. According to Berganigne (*Rel. Véd.* I, p. 232), the number 3 should be the multiplication of the same deity in the three worlds.

a. This may well be the three bulls in the three worlds, cf. V, 69, 2

b : We meet with the three *prajāh* also in the difficult passage VIII, 101, 14=AV. X, 8, 3. There it may refer to the three generations (cf. *tripuruṣām*). According to Grassmann, the three Aryan stocks. The three *vācah* (IX, 33, 4 ; 50, 2 ; 97, 34) are also said to be *jyótiragrāh* in VII, 101, 1 ; the Uṣas also have this adjective in AV. XIV, 2, 31 ; and RV VIII, 41, 3 speaks of three Uṣas.

c : Cf. TS. IV, 3, 11,1a, where *mahimānaḥ* occurs for *gharmāsaḥ*. The three gharmanas are also mentioned in AV. IX, 1, 8 (cf. RV. I, 164, 28) and in AV. VIII, 9, 13=TS. IV, 3, 11, 1 ; two gharmanas in RV. X, 114, 1. These might be the three sacrificial fires, or the fire of the three worlds, or the three mystic *gharmā* (hot milk)—offerings.

Stanza 8 :

Their light is like the growth of the sun ; their greatness is deep like that of the sea. Like the speed of the wind, your praise-hymn is not to be overtaken by anyone, O Vasiṣṭhas.

Stanza 9 :

They dive into the thousandfold-branched mystery, according to the presentiments of their hearts. Whilst they (further) weave the borders woven by Yama, the Vasiṣṭhas worship the Apsaras.

Notes :

a : Cf. st. 12a. The thousandfold-branched mystery is the great genealogical tree of mankind. Sāyaṇa : " they enter the Samsāra willing with the intuitions of the heart."

c : The succession of generations is there referred to in another picture of a cloth to be woven, cf. st. 12c and *tāntu*. Yama is here the first man.

Stanza 10 :

When Mitra and Varuṇa saw thee as light springing up from the lightning, that was thy (one) birth, and the other, O Vasiṣṭha, when Agastya brought thee up to (the status of) clanhood.

Notes :

a : Cf. X, 95, 10.

cd : The theme of sts. 11-14.

d : Padapāṭha : *Viśáḥ*, put Oldenberg rightly : *viśé*. The clan of the Tṛtsus is meant.

Stanza 11 :

And thou, O Vasiṣṭha, art on the son of Mitra and Varuṇa, born of Urvaśi out of her mere mind, O high priest ! Thee, the split drop, did all gods catch in the lotus flower on account of the divine prayer.

Notes :

b *mānasó'dhi* expresses the idea of a spiritual son (*mānasaḥ putraḥ*). Sāyaṇa : "from the desire this shall be my son."

c *brāhman* may well refer here to the old idea of the magical, mysterious power behind the prayer, cf. X, 61, 7.

Stanza 12 :

He, who, having presentiment of both (the births), has foreknowledge, who has thousand presents, and who is ever ready with presents : Vasiṣṭha was born of the Apsaras in order to (further) weave the border woven by Yama.

Notes :

a : An expression is given here to the idea that Vasiṣṭha knew beforehand of the double birth, and with this foreknowledge was born of the Apsaras.—To *ubháyasa* is to be supplied —*jánmanaḥ* according to st. 10cd. Sāyaṇa : "Heaven and Earth."

b : *Sádānaḥ* is, perhaps, a haplology for *sádādānaḥ*.

Stanza 13 :

Having been excited with homages during a long Soma-sacrifice, the two together sprinkled semen in a pot. Thence, from the middle, sprang Māna up ; thence, as they say, was born the R̥ṣi Vasiṣṭha.

Notes :

b : Another version of st. 11. d.

c : On the simultaneous supernatural birth of Māna (=Agastya), see *Anukramanī* on I, 166.

Stanza 14 :

(Agastya :) "He supports the hymn-bearer, Sāman-bearer. Carrying the pressing-stone, he shall first of all have the word. Tender your respects to him with your good-will ! Unto you, O Pratiṛds, may Vasiṣṭha come !"

Notes :

The stanza contains Agastya's words with which he brings up Vasiṣṭha to manhood.

ab : Vasiṣṭha is referred to.

b : Cf. V, 40, 8 ; IX, 113, 6.

d : *Pratiṛdaḥ* are, as Sāyaṇa says, the *ṛtsus*, i.e., the family of Sudās.

IDENTIFICATION OF THE RABARIS FROM SANSKRIT LITERATURE

By

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In the issue of the *Journal of the University of Bombay*, Vol. VII, pt. 4, new series, January, 1939, Mr. B. L. Mankad has published an interesting study of the Rabari community of Kathiawar. The Rabaris are by tradition and profession given to camel-rearing, and they trace their mythic origin to an ancestor who was the care-taker of the dromederies of God Śankara himself. The Rabaris constitute an extensive community. Geographically they are distributed over a wide area extending from Kathiawar, through Sindh and Rajputana to the Thal districts of the Sind-Sagar Doab in the Panjab, where they are known as *Arbaris*, and where most of them, although given to their traditional profession of camel-rearing, have embraced Islam. The Thal districts represent the ancient Saindhava country and have from times immemorial been celebrated for their breeds of horses and camels. The Arbaris there are a prosperous tribe whose only wealth consists in the large herds of camel which they keep.

Now the question arises whether we can trace any name in Sanskrit literature which may represent the ancient form of the modern word Rabari or Arbari. To this the answer is that in the *Mahābhāṣya* of Patañjali we find mention of a group of four Janapada names, one of which may be the Sanskrit form of Rabari. In commenting on Panini IV. 1. 120 [Kielhorn, Vol. II, p. 258] Patañjali quotes :

इडविड् ऐडविडः । पृथ् पार्थः । उशिज् प्रौशिजः । दरद् दारदः ।

Here we may identify at least three of the names with a fair degree of certainty, as all of them lie in the same geographical horizon. Idvid must represent the land of the Arbaris, the area of the Sind-Sagar Doab whose people were called the Aidavidas. North to it was situated the Prith Janapada, corresponding to modern Pothohar, comprising the Rawalpindi district. Uśij comes next. No modern name philologically

connected with it has survived. But proceeding north-wards from Rawalpindi or Pothohar, we come across the narrow strip of territory between the Jhelum on the east and the Indus on the west, or more strictly speaking the Indus forms the middle line of the territory from Swat on the west to Vyatha or Jhelum on the east. This area where the Indus takes a definite southerly turn is at present known as Kohistan. But Kohistan is a generic name which may be applied to any mountainous territory, and cannot certainly be an ancient name. From the position in the list of Patañjali, this strip of land seems to have been called *Uśij*, and its inhabitants were designated *Auśijas*. Next to *Uśij* Patañjali mentions *Darad* which is certainly no other than modern Dardistan, which comes just after Kohistan, and comprises the important tract lying east of Chitral. Here the Indus is in the last stages of its westward flow. Gilgit is an important town of Dardistan. The *Darad janapada* is frequently mentioned in ancient literature and was considered to be the home of the *Paiśāchī* dialect.

We thus see that the four geographical names given by Patañjali in illustration of a grammatical point referred to four tracts lying in a line from south to north.

That the reference by Patañjali is not accidental, but that the four names formed a well-known distinct group is attested by another reference in the *mahābhāṣya* where the four names are again mentioned in the same geographical order. In the first place quoted above (Panini IV. 1. 120), Patañjali tells us that the inhabitants of these four Janapadas were respectively unknown as *Aidviḍa*, *Pārtha*, *Auśija*, and *Dārada*. In the second instance we are informed of the designations which would be applied to the female members of these *janapadas*, viz.,

इडविड्वन्दारिका, ऐडविड्वन्दारिका । पृद्वन्दारिका, पार्थव्वन्दारिका ।

उशिग्व्वन्दारिका, प्रौशिजव्वन्दारिका । दरद्व्वन्दारिका, दारद्व्वन्दारिका ।

Incidentally it may be noted that in the latter place the order for *Uśij* and *Darad* is reversed in Keilhorn's edition of the *Bhāṣya*, but Dr. Kielhorn gives a significant note on p. 488 stating that MSS 'E B have the example *Uśig-vṛindārikā* before *Darad-vṛindārikā*. There can be no doubt that this was the original order of these words and that the reading of E and B giving precedence to *Uśij* over *Darad* must have been adopted as the correct one.

Philologically Aḍaviḍa is intimately connected with Arbārī, and it seems very probable that the rabārīs of the present day in the Sindh-Sagar doab represent their ancient Aḍaviḍa ancestors. It also appears that originally they occupied the Thal area which lent itself excellently to camel-rearing. Migrations of ancient tribes from the Panjab towards Rajputana and the south are well-known in Indian history, and there is no wonder that due to economic and political reasons a section of the original Aḍaviḍas left their original home and migrated towards Rajputana and ultimately found a settlement in Kathiawar where they have retained to this day their original calling.

DIVINITY OF KING IN HINDU POLITY

By

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One of the most common notions, believed to have been entertained by the Hindu Polity, is the Divinity of the King. It is generally opined that the writers on Hindu polity subscribe unreservedly to the doctrine of the divine origin and nature of the king, and as a corollary prescribe for the subjects the duty of unquestioned obedience to royal order and ordinances. Let us see how far this belief is well founded.

The maxim '*nāvishṇuḥ prīhivī*' 'none but a representative of Vishṇu becomes a king' no doubt occurs in later literature, but its equivalent cannot be found in the Vedic age. The R̥gveda refers to several kings but nowhere states or even suggests that any one among them was regarded as being divine in origin. Only one, among them, Trasadasyu, is described as '*ardhadeva*' 'semidivine' in IV, 42, 8; but the reason for his being so described is the myth that his mother Purukutsānī got him from the gods Aśvins after her husband's death as a special favour of theirs.

In the Brāhmaṇa period the idea of the divinity of king was being gradually mooted. King's victories were attributed to Indra's help; obviously he must be his representative or special favourite. At the time of his coronation, the Mantras maintain that a number of deities like Sāvitri, Aśvinis and Pūshan enter into the person of the Purohita when he proceeds to sprinkle the king with holy water; the latter invests the king with the lustre and prowess of a number of divinities;¹ obviously this must make him semidivine. As a result of the performance of the Rājasūya and Aśvamedha sacrifices, the king was declared to be attaining *sāyujya* with a number of deities; (*Tāṇḍya Brāhmaṇa*, XVIII, 10, 10); this was regarded in

1. देवस्य त्वा सवितुः प्रसवेऽश्विनोर्बाहुभ्यां पूष्णो हस्ताभ्याममेस्तेजसा सूर्यस्य वचसा
इन्द्रस्येन्द्रियेणामिषिचामि । *Āt Br.* VIII, 2, 7.

some quarters as establishing his kinship with gods. For various reasons into which we need not enter here, the Brāhmaṇa was at this time regarded as *bhūdeva* or a divinity on the earth : it was felt in some quarters that such a claim could be made on behalf of the king with a still greater justification, because, though one individual, he was ruling over many like god Prajāpati.¹

The obvious resemblance between the functions of a king and those of some of the gods have further impetus to the theory of king's divinity. The *Mahābhārata* observes that the king is no doubt a great divinity in human form. And what is the reason for this doctrine? The functional resemblance like Pāvaka or god of fire, a king burns his enemies; like Sūrya or the Sun he promotes the welfare of his subjects; like Antaka or the god of death, he executes those who are guilty of grave offences; like Yama, the god of justice, he punishes the wicked and rewards the virtuous; like Kubera, the god of wealth, he distributes wealth among his subjects (XII, 67, 40).

Nārada and Śukra also draw pointed attention to this functional resemblance between the king and the eight *dikpālas* when they refer to the theory of the divinity of the king. They however do not say that the king is Indra or Ravi; they only say that he is *like* Indra or Ravi.²

When the functional resemblance between the king and some of the divinities began to be emphasised, it was but natural that some should go a step further and declare that the king was not *like* a god but god himself. A writer in the *Mahābhārata* makes such an explicit statement.³ Manu also wanted to subscribe to that view and has tried to support it by his crude doctrine that the person of a king is fashioned out of the particles taken from out of the bodies of the eight *dikpālas*.

Courtiers and flatterers were naturally interested in popularising this theory. The pleasure or displeasure of a god, they pointed out, is after all usually a matter of inference; not so that of a king; we get instantaneous evidence in its case. Brāhmaṇas were interested in getting state support in favour of their

1. Satapatha Brāhmaṇa, V, 1, 5, 14.

2. जंगमस्थावराणां च हीडाः स्वतपसा भवेत् । भागभाग्रक्षणे दक्षो यथेन्द्रो-
नृप तिस्तथा ॥ Cf. *Nārada-smṛiti*, XVII, 26 ff. *Sukra-smṛiti*, IV, 3, 73.

3. न हि जात्वमन्तव्यो मनुष्य इति भूमिपः । महती देवता ह्येषा नररूपेण
तिष्ठति । *Mbh*, 67, 40 Manu VII, 8.

own claim to divinity ; so they naturally began to lend support to the theory of the divinity of the king. We notice that several Purāṇas like the *Agni-purāṇa* (chap. 225, 16 ff) *Matsya-purāṇa* (chap. 226, 3 ff.) *Vishṇu-purāṇa* (chap. 1, 13 ff.) and the *Bhāgavata* (IV, 13-23) have subscribed to the doctrine of the divinity of the king. It must however be observed in their favour that they emphasise upon the functional resemblance between the king and some gods and not upon his direct divine origin, either in the real or in the metaphorical sense.

The school of political thought, however, was not prepared to subscribe to this dangerous doctrine. It admitted the functional resemblance ; it was even prepared to subscribe to the theory of the divinity of the king, but on one condition ; viz. that it was to hold good only in the case of a good king. The *Sukranīti* states that a good king is no doubt divine in origin, but a bad king is a *kākshasa* incarnate ; the former goes to heaven and the latter to hell.¹ The subject do not owe the duty of obedience to the latter ; he is a dacoit in the form of a king and the subjects' duty is to bring him to his senses.

And how are they to discharge this difficult duty ? Various means are suggested. First they should admonish, warn and threaten him.² If this is not sufficient, they should expel him.³ If after his expulsion the king is likely to intrigue against his subjects, he should be killed like a mad dog.⁴

People in modern times may think that to depose or execute an oppressive ruler is as difficult for subjects as to bell the cat is for mice. But circumstances were considerably different in ancient India. There was no suzerain power to

1. गुणिलुष्टस्तु यो राजा स हेयो देवतांशकः । विररीतस्तु रक्षोऽशः स वै नरकभाजनः ॥ I, 87.

2. अधर्मशीले नृपतिर्यदा तं भीषयेज्जनः । धर्मशीलातिबलवद्रिपोराश्रयतः सदा ॥ IV, 1, 13

3. गुणवतिबलद्वेषी कुलभूतोऽयधर्मिकः । नृपोर्यदि भवेत्तं तु त्यजेद्राष्ट्रं विनाशकम् । II, 274

तःपदे तस्य कुलजं गुणयुक्तं पुरोहितः । प्रकृत्यनुमतिं कृत्वा स्थापयेद्राज्यगुप्तस्ते ॥ II, 275

4. अरक्षितारं हर्तारं विलोप्रारमनायकम् । तं वै राजकलिं हन्युः प्रजाः संनद्या निर्घृणम् ॥

अहं वा रक्षितेत्युक्त्वा येन रक्षति भूमिपः । स संहृत्य निहन्तव्यः श्वेवसोन्माद आतुरः ॥ Mbh XIII, 34, 35

support an oppressive ruler in spite of his misgovernment. Armies usually consisted of hereditary troops and maladministration could not but affect their loyalty. On several occasions troops are known to have co-operated in deposing and executing a bad ruler. And even if they were unwilling, people could still carry out their plan of deposition. They were not unarmed. An average adult in ancient India could wield the spear and use the sword almost as efficiently as a professional soldier. It is further to be noted that king's soldiers used to possess just those weapons which were in the house of every subject. Now-a-days if oppressed subjects rebel, they have to oppose with bare *lathis* royal troops armed with rifles, machine guns and aeroplanes. This hopeless inequality did not exist in ancient India. So the right to rebel which has been given by ancient Indian political thinkers to oppressed subjects was no impracticable right. It could and was exercised with success on several occasions. People therefore could bring a tyrant to his senses by the threat to rebel.

In the west the doctrine of the divinity of the king was mainly advanced in order to clothe the king with an arbitrary power to do whatever he liked. Blackstone has maintained that an erring prince must be left to the rebuke of his own conscience and to his personal accountability to God alone. Bishop Bousset has contended that it is wholly wrong to look upon a king as a mere man ; he is in fact an image of the majesty of God himself ; even open impiety on the part of a king does not exempt his subjects from the obedience which they owe to him. Hindu political thinkers have advanced no such ridiculous claims on behalf of the king, even when they were prepared to admit his divine origin in a figurative sense. They were prepared to regard a king as divine in origin only if he was an ideal king ; if he was otherwise, he was pronounced to be a devil, and then the duty of the subjects was not to obey him but to oust him and free the kingdom from his oppression.

The conception of the divinity of the king, with which a section of political thinkers was inclined to toy, was never taken by anybody very seriously. No one was prepared to concede infallibility to the king on the strength of that theory as was done in the west. On the other hand our political theorists point out that the king on account of his peculiar position is more liable to fall a victim to various temptations and mistakes, and therefore ought to be more on the guard. He is more liable to err on account of the temptations of the lust and the sway

of anger, and should therefore be more careful than commoners. His divine origin grants him no immunity from error. Nor does it dispense with the necessity of a careful training in his case during the childhood and adolescence. The education of the prince has to be carried out with a greater care than that of a commoner ; otherwise he would not be a virtuous and efficient administrator and would therefore not be able to claim any divinity for himself.

If the king was in a way divine, the Law was still more so, and it was the king's duty to enforce this divine law. The king was *dharmapratipālaka* and not *dharmapravartaka*. This circumstance naturally prevented the sacerdotal theory of the divinity of the king from causing any mischief.

In ancient Indian political thought the king is also regarded as the servant of the people, who is bound to protect them in return for the taxes which he receives from them.¹ The conception of the king being a trustee for the people also occurs frequently ; the taxes which he collects are held by him only in trust for the subjects and are to be used only in their interest.² The *Agnipurāṇa* goes a step further and maintains that the king is something more than a trustee ; a trustee is not called upon to sacrifice his own interests in favour of the object of the trust. This *Purāṇa* compares the king on the other hand, to a woman *enceinte*, just as the latter sacrifices her own convenience and happiness in order that the child committed to her care may prosper in the womb, so also the king must sacrifice his own ease, convenience and pleasure in order that the subjects committed to his care should prosper materially and spiritually.³

The above survey of the political thought of the ancient Hindus will show that the theory of the divinity of the king was half-heartedly propounded only by a section of Brahmani-

1. स्वभागधृत्या दास्यत्वे प्रजानां च नृपःकृतः । ब्रह्मणा स्वामिरूपस्तु पालनार्थं
हि सर्वदा ॥ Sukra, I, 188

2. बलप्रजारक्षणार्थं यज्ञार्थं कोषसंग्रहः । परत्रेह च सुखदो नृपस्यान्यश्चः दुःखदः ।
Ibid, IV, 2, 3

स्त्रीपुत्रार्थं कृतो यश्च स्वोपभोगाय केवलम् । नरकायैव सज्ञेयो न परत्र
सुखप्रदः ॥ 4.

नित्यं राज्ञा तथा भाग्यं गर्भिणी सहधर्मिणी । यथा स्वसुखमुत्सृज्य गर्भस्य
सुखमावहेत् ॥ Chap. 222. 8

cal thinkers. It was however never regarded even by them as investing the king with a right to rule in any arbitrary way he liked, as happened to be the case in the west. There is evidence to show that the kings who took it seriously and began to assume divine airs exposed themselves to the ridicule of society.¹ The political thinkers did not subscribe to the theory of divine origin. Their own view was that the correct way to understand the situation was to regard the king as a trustee for the people, whose sacred duty it was to promote the welfare of the people even at the cost of his own convenience and happiness.

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1. प्रतारणकुशलैर्धूर्तिरमानुषलोकोपचिताभिः स्तुतिभिः प्रतार्यमाणाः.....
 मर्त्यधर्माणोऽपि दिव्यशावतीर्णमिव सदैवतमिवातिमानुषमिवात्मानमुत्प्रे-
 क्ष्यमाणा प्रारब्धदिव्योचितचेष्टानुभवाः सर्वजनस्योपहास्यतां यांति ।
Bāna, Kādambari.

A NOTE ON SOME MEDIAEVAL INSCRIBED
JAINA METAL IMAGES IN THE ARCHÆO-
LOGICAL SECTION, PRINCE OF WALES
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These images are at present exhibited in the Jaina Gallery of the Prince of Wales Museum, and they are fairly well preserved. They vary in height at the base from 6" to 7" and from 3½" to 4". The inscriptions at the back are well preserved. The details of the *Parikara*, i.e. the paraphernalia of the image of the *Jina* conform to the standards laid down in the Jaina texts.

Yugādideva.—(the first *Jina*).

The *Mūlanāvaka* or the central figure of the *Jina* is *Yusādi-deva*,¹ sitting in the *Pūrṇabadmāsana* position and the *dhyāna-mudra* attitude. Most of the *Lokottara Lakṣaṇas* or the characteristic marks of excellence are there, the *Pariveśa* or the nimbus being quite prominent.

Jinakuśalasūri got prepared and he himself installed this image of *Yugādideva*, at Devaraiapura,³ on Māgha Sudi 5, Vikramasamvat 1384, corresponding to Wednesday, the 28th January, 1327, A.D.⁴

Jinakuśalasūri mentioned in the inscription can be identified with Jinakuśalasūri of the Kharataragachchha who wrote (in V. S. 1383) a *Vṛtti* on Chaitvavandana (by Jinadattasūri), and whose pupil Labdhnidhāna wrote a *Tibbana* on that *Vṛtti*. Vivekasamudra Upādhvāva was his *Vidyāguru* and it was on the advice of this Jinakuśalasūri that one palm-leaf MSS. of Naisadhacharita was brought in V.S. 1378, for preserving in the *Bhaṇḍāra*.⁵

1. Āchārādinakara.

Vāstusāra, ch. 2.

2. Adinātha, Rṣabha are some of the other well-known synonyms.

3. It cannot be exactly located.

4. Pillai—Indian Ephemeris IV, p. 256.

5. Desai—A short History of Jaina Literature (Guj.) p. 432.

Parsvanatha. (Pañchatīrthī).

The *Mūlanāyaka* is Pārśvanātha sitting in the traditional way. His cognizance, viz. the seven unfolded serpent hoods appear over the head. It being a pañchatīrthī, two *Jinas* stand in the *Kāyotsarga* position and the *Dhyānamudrā* attitude, on each side of the central figure (*Jina*). Two more are sitting above as usual.

The donors were two devout *Śrāvakas* who, for the spiritual uplift of their soul, got prepared and installed this *Pañchatīrthī* through the mediating offices of Śrī Jinarājasūri of the Kharataragachchha, on Vaiśākha Śudi 9, Vikramasamvat 1458, corresponding to Friday the 22nd April, 1401, A.D.¹

Jinarājasūri of the Kharataragachchha mentioned in the inscription can be identified with that of the same name and Gachchha who had as his *Paṭṭadhara*, Jinavarddhana, the author of a commentary (V. S. 1474), on *Sapāpadārthī* (by Śivāditya), and a *Vṛtti* on *Vāgbhaṭṭalamkāra*.²

Yugādiśvara—(Pañchatīrthī).

The *Mūlanāyaka* is *Yugādiśvara* sitting as usual.

This *Pañchatīrthī* differs from the former one in this respect that this one has a conch-blower sitting at the top. The nimbus has ten pencils of light radiating therefrom. Goddess Chakreśvarī is sitting in the centre of the base in the *Lalitāsana* position, having one of the right hands in the *Varadamudrā* and a citron in one of the left hands, and the discuses in the extra hands.³

The donors were Āśā and Doḍā, sons of the son of Hīrāde the wife of Meghā of the *Prāgvāṭa Gachchha* who with their children and wives, got prepared and installed this *Pañchatīrthī* through Ratnaśekhasūri the pupil of Somasundarasūri, on Vaiśākha Śudi, 3, V. S. 1509, corresponding to Saturday the 22nd April, 1452 A.D.⁴

Somasundarasūri mentioned in the inscription can be identified with the same as that of the same name and of Tapā-gachchha who was given Āchārya pāda by Devachandrasūri and whose Dikṣāguru was Jayānandasūri of the same Gachchha.

1. Pillai, *ibid.* V, p. 4.

2. Desai, *ibid.* p. 474.

3. This is in complete accordance with her description in *Vāstusāra*, ch. 2, verse 28. Āchāradīnakara, *ibid.* does not mention this Devī, at all.

4. Pillai, *ibid.* V, p. 106.

He had many well-read pupils, Ratnaśekharasūri being one of them. He (Ratnaśekharasūri) wrote (in V.S. 1496), a commentary, viz. Arthadīpikā on Śrāddhapratikramaṇa which was seen through by Lakṣmībhadraganī. He also wrote Āchārapradīpa in V. S. 1516.¹

Kunthunātha—(Pañchatīrthī).

The *Mūlanāyaka* is Kunthunātha, sitting as usual.

The inscription at the back is full of grammatical errors, but it is certain that Malayachandra of the Vakeḍiyā Gachchha installed this *Pañchatīrthī*, at Sevarāṇa,² on Phālguṇa Śudi, 10, Somavāra, V. S. 1515, corresponding to Thursday, the 23rd February, 1458, A.D.³

Malayachandra of the Vakeḍiyā Gachchha can be identified with that one of the same name (the pupil of Sādhu Ratnasūri), who wrote (in V. S. 1519), Simhāsanabatriśī, Devarāja-vatsaprabandha, etc.⁴

Śreyāmsanātha—(Pañchatīrthī)

The *Mūlanāyaka* is Śreyāmsanātha, the eleventh Jina sitting as usual.

The donor was the son of Harṣū, the wife of Desala of the Upakeśa Gachchha. He got prepared this *Pañchatīrthī* and Guṇākarasūri installed it on Māgha Śudi 5, Budhavāra, V. S. 1525, corresponding to Saturday, the 30th January, 1468, A.D.⁵

Guṇākarasūri mentioned in the inscription must be the same as that one of the same name and of the Chaitra Gachchha who wrote (in V.S. 1504), Samyaktvakaumudikathā. He also wrote Vidyāsāgarakathā.⁶

Vimalanātha—(Pañchatīrthī).

The *Mūlanāyaka* is Vimalanātha, sitting as usual.

This *Pañchatīrthī* has much in common with the one having *Yugādīśvara* the central figure with the slight difference, to wit, the nimbus has fewer pencils of light radiating therefrom ;

1. Desai, *ibid.* p. 466.

2. It cannot be exactly located.

3. Pillai, *ibid.* V, p. 118. There appears to be a mistake, in the inscription, in mentioning the day.

4. Desai, *ibid.* p. 523.

5. Pillai, *ibid.* V, p. 138 ; there appears to be a mistake in the inscription, in mentioning the day.

6. Desai, *ibid.*, p. 514.

two figures playing upon musical instruments are found just above the two sitting *Jinas*; the *Bhakta* couple, having the nimbus are standing below. The auspicious symbol, viz. *Dharmachakra* is quite clear on the soles and the upper palm of the *Jina*.

The donor was Pithāka of Udaipur and of the Varāḍiyā gotra, Osavāla, who together with his sons and grandsons, got prepared this *Pañchatīrthī* through Bhaṭṭaraka Vijayadevasūri (who was helped in that ceremony by Āchārya Vijayasimha), on Vaiśākha Śudi 8, Vikrama Samvat, 1686, corresponding to Monday, the 20th April, 1629 A.D.¹

Vijayadevasūri mentioned in the inscription can be identified with that one of the same name and of the Tapāgachchha, who was the pupil of Vijayasena, who got Āchāryapada in V.S. 1628 at the hands of Śrī Hīravijayasūri and died in V. S. 1672.² Vijayadevasūri was honoured by Jehangir and Jagatsimha, the Mahārāṇa of Udaipur, was impressed by his versatility.³ He died in V.S. 1713.⁴ Vijayasimha was his pupil. The engraver has by mistake reversed the order of the names of the Teacher and the taught.⁵

1. Pillai, *ibid.*, VI, p. 60.

2. Kapadia—*Stutichaturvimsatikā*, by Sobhanamuni, p. 49, n. 2.

3. Muni Jīnavijaya—*Vijayadeva Māhātmya*.

4. Kapadia, *ibid.*, p. 49, N. 3.

5. This tentative conjecture of the present writer is vindicated on the following grounds :—(i) The reading Vijayasimha is quite clear. It cannot by any stretch of imagination, be read as Vijayasena; (ii) The Samvat 1686 is quite readable and moreover Vijayasenasūri, as said above, died in V. S. 1672.

* I am indebted to the Curator of the Archaeological Section and through him the trustees of the Prince of Wales Museum of Western India, Bombay, for kindly permitting me to publish my readings of the inscriptions etc. S. C. U.

THE LATE PANDIT BHAGWANLAL INDRAJI.

By

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In the galaxy of great men on the Indian horizon, Gujarat has the proud privilege of providing three great luminaries who have not only guided the destinies of Modern India in their own spheres, but have also spread the rays of their spiritual and intellectual excellence far and wide throughout the world. These three bright stars of Modern India were born in Gujarat in the first, second and third quarters respectively of the last century.

The first of these brought about a radical change in the social and religious life of India and taught Indians how to look back and learn the secrets of India's past splendour and adapt them to the modern needs in various walks of life. Like Luther, it was he who was responsible, directly or indirectly, for bringing about the Indian age of Renaissance, even at the cost of his life. No social or religious reformer of the modern age has yet been able to go out of the lines of action chalked out by him half a century ago.

The second star that shone out on the horizon of Gujarat not only dazzled the eyes of Indian scholars by his eminent scholarship and unique intellectual development, but also deservedly earned the adoration and high appreciation of the European scholars interested in the oriental studies by dint of his bright and yet precise conclusions on points that had been engaging the attention of scholars for decades together. No scholar interested in the Ancient History and Archaeology of India can afford to overlook the result of his researches.

The third little star who appeared last on the scene was by no means the least. He was destined to be the deliverer of Political India. He is the 'Uncrowned King' of the Country. By his magnetic personality and untiring zeal for the salvation of India's political bondage, he has brought about an unprecedented awakening among the masses and is ruling over the minds of the millions in India and is a man of mystery to

thousands abroad. He is, with a frail body and strong soul, a septegenarian prophet of politics with TRUTH and NON-VIOLENCE as his creed—a man of Universal repute.

May we now mention them by name? The world has known the first as Maharshi Swami Dayanand; the second was the great Archæologist Pandit Bhagwanlal Indraji and the third is our venerable Mahatma Gandhi. Gujarat can reasonably be proud of all these three lustrous stars of International fame.

The Centenary of Maharshi Swami Dayanand has already been celebrated in the year 1925 throughout India. Let us pray God that our beloved Bapu may live to be personally present at his centenary 29 years hence which is sure to be celebrated throughout India and many parts of the world. It is the Centenary of Pandit Bhagwanlal Indraji with which we are at present concerned. It is being celebrated throughout Gujarat, and the Gujarat Research Society is issuing this Volume in memory of that great Gujarati scholar at the occasion. Let us, therefore, look back at the life and work of the Late Dr. Bhagwanlal Indraji and offer our humble tribute of words.

In the old historic city of Junagadh, at the foot of Girnar abounding in the most ancient archæological remains of Gujarat, at an auspicious moment on the 3rd day of the bright fortnight of Kartik in the year 1896 of the Vikram era (corresponding with the 7th November 1839 A.D.), Indraji, a well known physician of the Prashnora Nagar community, got his third son, who was named Bhagwanlal. We are not aware of the early life and childhood of this great genius of Gujarat except that he was educated in a Gujarati Pathashala in the old oriental style. There was neither any arrangement for the study of English language and literature at that time, in Junagadh nor did the Patriarch of his prominent Prashnora physician family feel the necessity of sending out his sons elsewhere to get the requisite English education. He was perhaps too proud of his own learning and profession to cherish a desire for his children being employed on a lucrative post in British India unlike so many of his contemporary parents, of the State. Hence, after the completion of his education in his mother tongue, Bhagwanlal, like his brothers, learnt Sanskrit literature and Medicine at the feet of his own father and by virtue of his own talent and brightness acquired a sound knowledge of the aforesaid subjects at a comparatively early age.

While still in his teens Bhagwanlal came across the rock edicts of Asoka along with the Gupta and Sah inscriptions on Girnar, during his ramblings and naturally felt a keen desire to decipher the old writing. Unfortunately none from the Pandits of the time could read these old cave characters, as they then called it, nor cared to fathom the mystery. Only a few European scholars had been busy trying their level best to fix the values of these Alphabet which they called 'Pali' and only a few scholars in the cities of Bombay and Calcutta were following them. Fortunately enough Colonel Lang, the then Political Agent of Kathiawad States evinced a great interest in this subject. It was he who supplied the facsimiles of the Asokan edict of Girnar to James Prinsep who after a careful study of the same with other Asokan inscriptions and coins had prepared a list of the Pali Alphabet and published in 1838 which served as key to the early scholars of Indian Palæography in the early stage.

One day, while the young Bhagwanlal was worrying the local Pandits to give him some clue to decipher the Girnar writings, Mr. Manishankar Jatashankar, an intelligent Nagar Brahmin, passed on to him a thin paper containing the Pali Alphabet taken from Prinsep's Journal given to him by Col. Lang for studying the characters. Bhagwanlal was immensely pleased to have a look at the Alphabet and requested Mr. Manishankar to please let him make a copy of the same for his personal study which was allowed. He brought it home and took out two oil paper tracings, stitched them on a foolscap paper and inked the letters. One of these beautiful copies he presented to Mr. Manishankar with his original paper and the other one he kept for his own use and set upon his task of deciphering the Asokan and the Gupta inscription of Rudradama, on Girnar. During his studies he came across a number of difficulties in case of compound letters, but by persistent efforts he succeeded not only in solving the riddles of his own but was also able to correct many omissions and inaccuracies in Mr. Prinsep's copy. In this connection, he also studied all published literature on the subject which he got through a friend in Bombay. He used to start every day at about 4 P.M. for Girnar and work there on the inscriptions till sunset. This he continued for months together till he could fix up the value of each and every letter and stroke of all the inscriptions on the rock. His method of transcribing in Devanagari script and Sanskrit language, each and every letter

on the Pali language and script made him very familiar with those old characters and language. His subsequent readings of other inscriptions of various periods of which he got the facsimiles made him almost an infallible expert at the art of deciphering ancient scripts and interpreting them in modern Sanskrit. In this great work of Bhagwanlal, Col. Lang helped a good deal by constantly supplying him with the up-to-date information regarding the researches of Western scholars on the subject and also by getting him the estampages of hundreds of inscriptions from various parts of the country. Bhagwanlal's prompt response to all this co-operation and his brilliant success immensely pleased Col. Lang. He used to refer to Bhagwanlal as his "little antiquarian" and widely advertised his work among the scholars who were then working in the line. Among Indian scholars who took interest in Indian Archæology to some extent at the time, were Pandit Balashastri Jambekar and Dr. Bhau Daji of Bombay.

Col. Lang was succeeded by Mr. A. K. Forbes as the Political Agent of Kathiawad who was equally interested in the antiquarian research of Gujarat and Kathiawad and did a good deal to revive the old history and literature of this province. He was naturally attracted towards Bhagwanlal and was so much pleased with him that he straightway wrote to Dr. Bhau Daji to utilise the services of this young Pandit. Accordingly Dr. Bhau invited Pandit Bhagwanlal, who was hardly 22, to Bombay with a view to acquaint himself with him and his work. In response to this invitation Pandit Bhagwanlal came to Bombay for the first time in 1861, with sixty rare Kshatrapa coins and his readings of the Girnar inscriptions. Dr. Bhau was very much impressed with the store of valuable information and material that the Pandit possessed. He also introduced him to Mr. Newton, the President of the Bombay Royal Asiatic Society who was then writing a paper on Kshatrapa coins. Pandit Bhagwanlal showed him the lot of Kshatrapa coins that he had brought with him and read out to him the names of Nahapana and other rulers on the coins unknown till then. Mr. Newton was extremely pleased at this timely help which, he thought, if utilised would enhance the value of his paper to a great extent. Accordingly, he incorporated all information and help he got from him in the paper with due acknowledgment. Similarly Dr. Bhau was also tempted to write a paper on Girnar inscriptions in the light of the researches of the young Pandit who proved to him

that Wilson's translation of Sah inscription in Mr. Thomas' edition of Prinsep was full of inaccuracies and incorrect readings. The copies of Mr. Westergaard and Jacob also were insufficient for decipherment. So he sent back Pandit Bhagwanlal to Junagadh with a request to prepare for him fresh facsimiles of all the three inscriptions of Girnar including the celebrated Asokan edict. Pandit Bhagwanlal returned to Junagadh and was shocked by the death of his father. After finishing the funeral ceremonies, he applied himself to the task undertaken by him and sent to Bombay, where, after a thorough examination of these facsimiles and true eye copies, a paper was prepared by Dr. Bhau Daji which he read before the Bombay Asiatic Society. In this paper¹ he eulogised the labours and intelligence of Pandit Bhagwanlal who was responsible for bringing to light a correct and complete reading and interpretation of the Girnar inscriptions for the first time. This revealed the imperfect nature of the facsimiles and translations of Prinsep and other European scholars. The name of the lake 'Sudarshana' and of the king Rudradama, builder of a bridge over it, were thereby revealed with the correct identity of the king who was the grandson of Swami Chatsana and had Suvisakha—a Persian Governor of Anarta (Konkan) and Surastra (Kathiawad). This paper was very much appreciated by scholars in India and abroad.

Now, as Dr. Bhau Daji wanted Bhagwanlal to devote his sole attention to antiquarian research under him, he invited him to Bombay. Accepting this offer, Pandit Bhagwanlal came down to settle in Bombay on the 24th April, 1862, and was received very heartily. He was accommodated in a tent especially pitched in Dr. Bhau's compound till a permanent residence was found for him at Walkeshwar.

Dr. Bhau Daji being one of the earliest batch of Medical Graduates of the Grant Medical College, was the most prominent medical practitioner of Bombay with a lucrative practice. What little time he could snatch out of his busy hours, he devoted to social, moral and political advancement of India. He was connected with a large number of institutions and had multifarious activities. Above all being highly cultured, he was also taking part in the literary activities dealing with ancient history and Archæology. He kept himself fully aware of all up-to-date Indian antiquarian researches. He had master-

1. J. B. B. R. A. S., Vol. VII, P. 113.

ed all existing material in English directly and had translations made of contributions in German, French and other languages by oriental scholars. He was a patron of learning and learned shastris of whom a considerable number ever used to be about him. He had a burning desire to strike something new from the unexplored regions of literature and science.

Accordingly, when he saw that Bhagwanlal was exactly the type of scholar he was longing to have to assist himself, he very cordially invited him to stay with him in Bombay and do all that he could to further the cause of research in Ancient Indian literature, history and archæology and offered to bear all his expenses in that connection. On this side, Pandit Bhagwanlal possessed the ardour of youth with an indomitable energy to work for days and months together at any place and under any odd or even circumstances. Thus, both of them formed a very good union of Eastern and Western Education and culture which produced such results as can be classed as epoch making, so far as archæological and especially epigraphical discoveries are concerned.

Soon after his visit to Bombay Pandit Bhagwanlal was required to go to Ajanta caves with a view to prepare fresh estampages and correct eye copies of the inscriptions and descriptions of the paintings there. Efforts in this direction were made by James Prinsep, Dr. Bird and Lieut. W. F. Brett (engaged by the Bombay Government), but none of them could be styled as correct or accurate. Dr. Bhau himself had been there in February 1862 but notwithstanding his care and diligence he could neither revise the readings of the inscriptions nor was able to take good impressions of the same though for a few days that he had at his disposal he worked from morning till sunset. He had, therefore, to return without completing the work. Some of the inscriptions were at such a great height and looking upon giddy precipices that, none but a scholar mad after them with an expert eye at reading the cave characters, would take the risk of climbing up to them and work persistently. In Pandit Bhagwanlal, Dr. Bhau found the requisite qualifications for the arduous task. He, therefore, informed him of the numerous attempts made up to that time and acquainted him with all the experiences they had and requested him to apply himself to the work and not return till complete success was achieved. Accordingly he left Bombay on the 19th of May and took about 2 days to reach the caves where he stayed for about a month and a half. During this period

he applied himself seriously to the most difficult task entrusted to him, carefully examined the doubtful letters in the morning and evening lights and succeeded in deciphering them thoroughly. He then sent the fresh copies with his correct transliterations in Sanskrit to the entire satisfaction of his patron. On the receipt of his letter of congratulation at the brilliant success, he returned to Bombay. An examination of his notes and diary, which the writer has been fortunate enough to acquire, through the good offices of Mr. Durgashankar K. Shastri, shows how earnestly he worked from morning till sunset and how after a single letter he had to spend a considerable time in examining it in the morning, mid-day and evening lights. His notes are full of information regarding the description of paintings in each of the dark caves, written out after a careful examination. They also give us an idea of the hard and strenuous work he had to put in day after day.¹ After his return to Bombay Dr. Bhau prepared a paper on these 23 inscriptions and read it before the Bombay Branch of the Royal Asiatic Society on the 10th July 1862, which was published in Vol. VII of the Journal of the said Society.

Within a year after this, Pandit Bhagwanlal completed the readings of a large number of inscriptions from the caves at Nasik, Karli, Bhaja, Bedsa, Junnar, Pitalkhora, and Nana-ghat, etc.

At the recommendation of Sir Bartle Frere in December 1863, Dr. Bhau sent Pandits Bhagwanlal and Pandurang Gopal Padhye to examine the Jain Bhandars at Jaisalmere with a view to take down copies of such of the old works found therein as were rare, important or unpublished. There being no direct route from Bombay, they had to reach the place via Karachi. After reaching there, they obtained permission of the Durbar to work in the Jain Bhandar of the State manuscripts. Due to the damp atmosphere of the place, where they had to work for the whole day in that cold season, Pandit Bhagwanlal suffered from typhoid fever while Pandit Pandurang got Malaria which confined them to bed for about three weeks out of the three months that they stayed there. At any rate, they finished the work assigned to them and returned to Bombay, via Deesa in May 1864 with copious notes about and true copies of a large number of rare and important manuscripts.

By this time Dr. Bhau had finished his hurried tour

1. A page from his diary with his own signature is reproduced here.

A Page from Pt. Bhagawanlal's Note-Book
in his own hand.

मम गङ्गा नदी

through North Western Provinces, United Provinces and Bengal, etc. and noticed a large number of sculptures and inscriptions, which needed a thorough examination and correct interpretation. He, therefore, told Pandit Bhagwanlal that apart from the large number of inscriptions on stone and copper plate prints published years ago that required a thorough revision, he knew of hundreds of inscriptions on temples and other ancient remains which if carefully examined by a competent person like you, a flood of light could be thrown on the history and antiquities of India beyond the expectations of the most zealous orientalists who were utterly disappointed with the then condition of Indian historical researches.¹ Taking up this hint Pandit Bhagwanlal went round almost the whole of India on a pilgrimage tour when he made up his mind, prepared preliminary notes and chalked out the programme for future extensive study tours in 1865-66. He also took advantage of Dr. Bhau Daji's experience during his tours, and after a couple of years' work at his table in studying all published literature on the subject of Indian Archæology obtained leave for a year in 1868 from Dr. Bhau Daji to be absent in Upper India. He first went to Allahabad via, Nagpur and Jubbulpore, and obtained permission of the local authorities to erect a scaffolding on the Asokan pillar in the Allahabad Fort which is a very important historical record with inscriptions of various Emperors from Mauryan to the Mughal period. Pandit Bhagwanlal spent five days in carefully preparing facsimiles on cloth of the Sanskrit inscription of Samudragupta in Brahmi characters. This true copy with its transliteration in Devanagari script was sent to Dr. Bhau who utilised it in detecting the mistakes of previous scholars in reading a paper before the Bombay Royal Asiatic Society,² and revealed for the first time the names of some of the contemporaries of Samudragupta. From Allahabad, the Pandit went to Benares, Bhita, Mathura and Delhi and carefully examined all the ancient remains. Those at Bhita and Mathura interested him the most. At the latter place he found quite a big treasure of high antiquarian value in old yet renovated temples and ruined Buddhist sites. He prepared about 35 facsimiles of important inscriptions and purchased some Indo-Greek and Kushan coins from the bazars of Mathura before returning to Bombay. When Dr. Bhau

1. The same observation was made by him in his article published in the J. B. B. R. A. S., Vol. IX.

2. Published in J. B. B. R. A. S., Vol. X. P. 59.

learnt of the interesting finds at Mathura and other places in Northern India which Pandit Bhagwanlal could not thoroughly survey for want of funds, he managed to get the Nawab of Junagadh interested in young Pandit's work and got a sanction from him for another literary expedition of Pandit Bhagwanlal to Northern India. He also equipped him with influential introductory notes and certificates together with a D. O. Circular from C. J. Lyall, the then Under Secretary to the Government of India addressed to the Magistrate at Mathura, Agra, Benares, Farrukhabad, Gorakhpur, Ghazipur and Allahabad requiring them to give all facilities and help in the learned Pandit's work of visiting the ancient sites and taking down copies of the inscriptions at such of the places within their respective jurisdictions as he might like to visit in connection with his antiquarian researches. In this tour which he began on the 7th March he was accompanied by his wife who shared with him his toils and adventures of his jungle life as well as the pleasures as also the privileges and dignity of being the Government guest in various tours. She was taken by him partly to acquaint her with the important places and partly to afford her a change of climate that she needed for reasons of health. After visiting Kandwa, Omkareshwar, Indore, Ujjain, Bhilsa, Sanchi, Udayagiri caves, Allahabad, Benares, Delhi, Kalpi, Mathura and Agra he reached Gwalior where his wife's illness grew serious. So, he had to return to Bombay in March 1872 after a year's tour. Here his wife was placed under the treatment of Dr. Bhau Daji, who cured her completely within a few weeks.

After the recovery of his wife, Pandit Bhagwanlal again wanted to resume his north Indian tour which he had to abandon due to her illness. This time also Dr. Bhau arranged to get for him the expenditure of his tours from the Junagadh Darbar as also the introductory notes for facilitating the Pandit's work with the help of the local Government officers. This time he extended his tour to Nepal and Tibet in the North East and Baluchistan and Yusuzai etc. towards the North Western Frontier. His notes of all these tours which he regularly wrote in Gujarati, contain vivid descriptions of what he saw and did day to day, as also of the royal receptions accorded to him at many places including the most magnificent welcome function arranged by the Late Sir Jung Bahadur of Nepal, of the ancient remains he examined, of the old inscriptions that he came across, deciphered and copied and of so

many other things which if published would be a most interesting and instructive account, unique in itself, inasmuch as there is as yet a dearth in Gujarati language, literature on such scholarly account of travels in various parts of India. Some of his long letters written to the Junagadh Darbar were published in the issues of *Puratattva*—a Gujarati quarterly organ of the Gujarat Vidyapeeth, now extinct. Similarly his letters written from various places to his friend Mr. Kasandas and Dr. Bhau Daji etc. are also interesting. Unfortunately no effort has yet been made to collect and publish all this literature of his expeditions of antiquarian research. Major part of it is now destroyed or lying in unknown quarters. Will some Gujarati scholar or institution take up this work and revive the results of literary activities of this forgotten savant of Gujarat? It would besides, be a real commemoration of the Late Pandit's life and work if his learned contributions in original (translations of which are published in English, German and other languages) could be compiled in a single work.

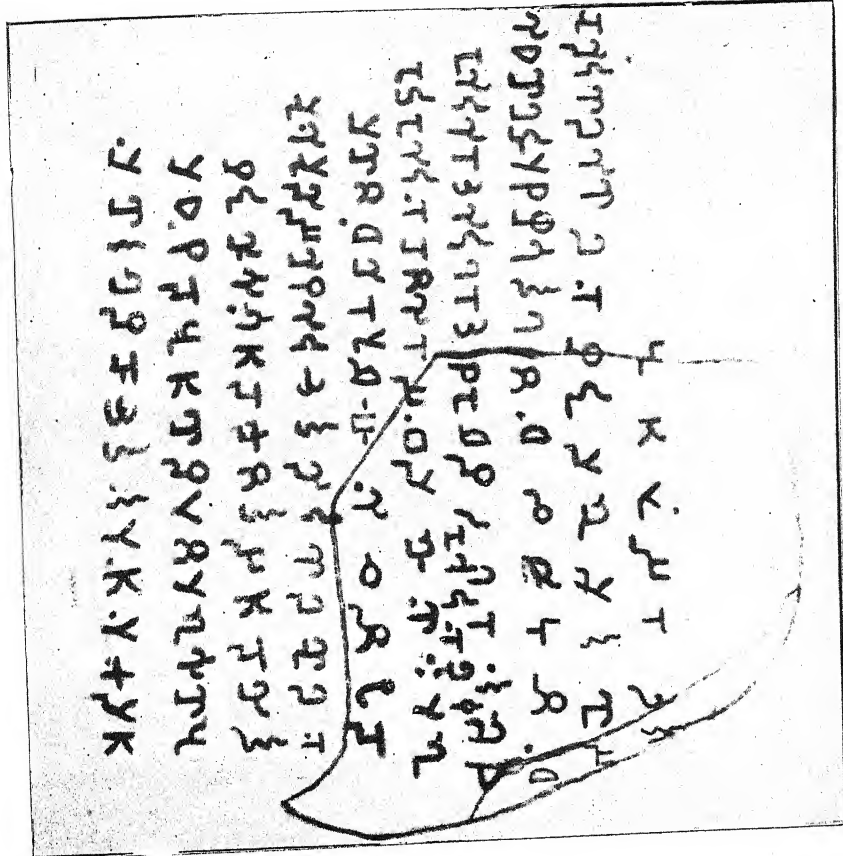
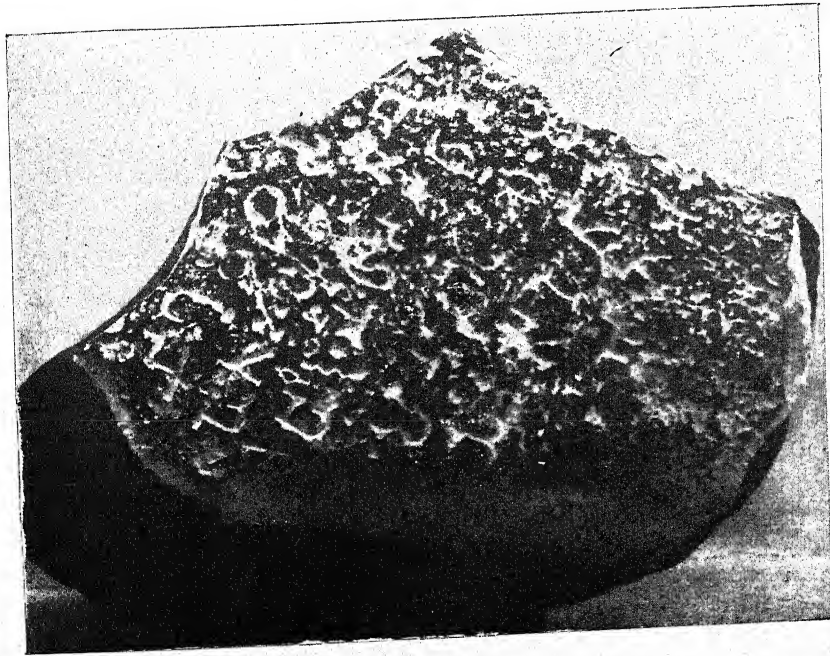
On returning from this North Indian tour in May 1874 he was shocked to see that his patron and sole source of his encouragement and success was lying prostrate by a fatal stroke of paralysis. All the efforts made by him and numerous other friends to save Dr. Bhau (the restorer of life to thousands during his life time) proved futile and at last the great orientalist and patron of scholars passed away. His death was a great blow to Pandit Bhagwanlal who felt within himself for a while, that that was a signal for an end to his activities of antiquarian research. //

But as his grief grew older and the contemporary scholars pressed him to take the place of Bhau Daji in guiding their activities of antiquarian research in India, it struck him that the best tribute of respect and love which he could pay to the memory of his deceased patron, master, friend and Guru was to continue his work in the field of Indian Archaeology wherein he could confidently advance the studies a few steps further. His inability to express himself in English was, no doubt, a drawback but by no means an impediment in the prosecution of his researches. Dr. Bulher, a great German orientalist and a sound scholar of Indian Epigraphy, frequently helped him in putting his Gujarati notes into English and publishing them in a suitable form in scientific journals. One of the papers thus translated and published in the *Indian Antiquary* was on the 'Ancient Nagari numerals' which he could work out from

a close study of inscriptions on stone and coins of the Kshatrapas, Valabhis and Guptas. Dr. Buhler in his post-script added that this important research of his fellow Sanskritist deserved a speedy publication and hence he rushed through the press to announce it to the world. Similarly Dr. Cordington, Dr. Burgess, Dr. Peterson, Dr. Cunha and other scholars were among the friends of the Pandit who very much appreciated his scholarship, knowledge and accuracy and looked upon everything that came from him, worthy of every attention. So many of these scholars have done monumental work in collaboration with the Pandit. The well known archaeologists Burgess and Fleet owe him a good deal in preparing their works published by the Archaeological Survey of India. He was closely associated with the work of Mr. James Campbell—the compiler of Bombay Gazetteer. It was Pandit Bhagwanlal who supplied him with historical observations based on the up-to-date Epigraphical and Numismatic researches. Lord Reay, the then Governor of Bombay was also interested in his work and valued it very much. With a view to make his work as complete as possible a Government Resolution was circulated to all collectors, Political Agents and other officers of the province to ascertain if any copper plates or inscription stones existed with the States, religious institutions or private persons and to make the facsimiles or originals of them all available to Pandit Bhagwanlal Indrajī who would give them their proper place in history. A young graduate, Pandit Ratiram Durgaram, Dwivedi, who had some previous experience in Mr. Campbell's office of bringing all historical data together for the purposes of the history portion of the Gazetteers of various districts, was placed at the Pandit's disposal. He took down all that Pandit dictated to him in Gujarati and then submitted its English version to Mr. Campbell for use. Thus almost the whole of the ancient history of Gujarat in Vol. I, part I, of the Bombay Gazetteer was the result of Pandit Bhagwanlal's sound scholarship and skill in knitting together the scattered material that could come to his notice.*

Pandit Bhagwanlal not only directed Archaeological research in the Bombay Presidency but had several of his conclusions published in various scientific and literary journals which secured for him a high reputation and were followed by honours one after the other. To begin with, the Bombay Branch of the Royal Asiatic Society elected him an honorary

* Now this work also needs revision.



Fragment of the 8th edict of Asoka discovered from Sopara and Pandit Bhagwanlal's decipherment of the same with the lost Portion restored.

member in 1877. The Government of Bombay appointed him a fellow of the University of Bombay in 1882. The Board of the Royal Institute of Philology, Geography and Ethnology of Netherlands at Hague made him a Foreign Member of the Society in October 1883. The Senate of the Leyden University conferred upon him the degree of *Honoris Causa* in January 1884. The great orientalist, Prof. Kern, in making this announcement to him wrote, "I cannot but heartily congratulate you with that signal acknowledgment of services which you have rendered by your most valuable contributions to the study of Indian Epigraphy. The degree of our Senate may convince you that your work is no less appreciated in Europe than in your own country." Similarly, Prof. Max Müller, who was very much interested in his researches sent him letters showing the high esteem in which he was held by German orientalists who also got him a doctorate of their University. In the same way Colonel Yule, Sir Edward, Clive Bayley and Edward Thomas, etc. got their appreciation recorded by electing him an Honorary Fellow of the Royal Asiatic Society of Great Britain and Ireland.

Pandit Bhagwanlal had a perfect command over the ancient epigraphical records spread throughout the nook and corner of India. Even the frontier lands of Nepal, Tibet, Afghanistan, Burma and Ceylon were surveyed by him and important discoveries of antiquities at these places made by him brought to light the ancient glory of India. Mr. J. Campbell, the compiler of the Bombay Gazetteer, was so much enamoured of him that he liked to spend an hour or two daily with him and on holidays he would take him round various ancient sites around Bombay which were thoroughly examined and important discoveries ensued one after the other. One of these occasions brought him the most important haul of a stone, which the Pandit could, to his greatest pleasure, find and declare to be the part of the eighth edict of Asoka at Sopara. The fragment was so incomplete that none but an Epigraphist of Pandit Bhagwanlal's deep insight could have proved it to be so, by a patient comparison of the stray letters noticed on the stone with the text of the Asokan edicts at Girnar, Allahabad, and other places. The marvellous making up of the eighth edict by filling up the gaps was the greatest display of Pandit Bhagwanlal's brilliant brain. The fragment and the whole text of the edict made up by him are illustrated in this issue for a ready reference. This, as well as the miraculous find of

the Buddhist relics at Sopara discovered in the Easter holidays in 1882 form the subject of his paper in the journal of the B. B. R. A. Society, Vol. XV.¹ In short, every one of his discoveries supplied materials for filling up gaps in the history of India. He had a special knack of working. The conclusions he arrived at, though apparently bold in the beginning, have turned out to be quite correct and have supplied useful data for further researches.

Thus Bhagwanlal became the moving Encyclopædia of Indian Archæology. The material collected in his brain and the conclusions formed after mature deliberations were too numerous to be recorded in a short article. Had he lived to see his centenary, he would probably have made the history of India more glorious than what it is to-day and advanced the knowledge of Indian Archæology much ahead of the modern Archæologists. But we can seldom achieve all that we aspire for. With the dawn of 1888 Pandit Bhagwanlal began to feel that his end was near and so he was ever anxious to see that all he knew was put to writing. Due to the dropsy that he developed, he was confined to bed. His friends and admirers flocked to see him at his residence at Walkeshwar where he was generally found sitting on a cushion in a contemplative mood like the Dhyani Buddha. He was very much reduced while his belly had grown disproportionately large and his legs were swollen. At times he was seen dictating, though with bated breath, his last views on the genealogy of Kshatrappa dynasty in Gujarati which were translated by his friend Mr. Vithalji Keshavji Dwivedi in English. Pointing to the portion taken down he said, "This is my last contribution to Indian Archæology. It contains views arrived at after a careful and continuous study, extending over 26 years, of the Kshatrappa coins and inscriptions. It is a great relief to me to see that it is now nearing completion and in this at least that I redeem my pledge, out of the many literary projects over which my mind had been ruminating for several years and the execution of which was only a question of leisure and steady application. I am not afraid of death, but the only regret I feel that, I have not been able to commit to writing or even dictate to some scholar the final results of all my enquiries and thoughts". All the same he died peacefully. He had no issues

1. These antiquities are illustrated along with the article entitled "Sopara relics re-examined" published elsewhere in this volume.

and his wife had already died ere long. His will at the time of death is also a thing that was deserving of a real scholar and philosopher of his type, unique in itself. In course of literary life extending over 26 years and his tours throughout the length and breadth of the country, he had made a unique collection of literary and antiquarian treasures. One of it was a collection of manuscripts of Buddhistic literature of Nepal, of Jain works and some manuscripts of Vedic literature. He had also a valuable collection of about 700 Kshatrapa coins which included many rare specimens and issues of four new kings of that dynasty. Besides, there was a miscellaneous collection of Andhra and South Indian coins. He also had the most important sculpture from Mathura, the lion pillar capital with Kharoshtri inscription. The whole of his collection of manuscripts he made over to the Library of the Bombay Branch of the Royal Asiatic Society with a request that the collection may be kept in a shelf along with the manuscripts of Dr. Bhau Daji. He wanted the cupboard of his Sanskrit Manuscripts to be superscribed as the collection of Dr. Bhagwanlal, pupil of Dr. Bhau Daji. His collection of coins he directed to be dedicated to the British Museum along with the Lion Pillar Capital, which he styled as the most valuable gem of his collection. He also gave away his copies or rubbings of numerous inscriptions to the British Museum. The Library of the Pandit consisting of the valuable published works on Indian Antiquities was directed to be made over to the Bombay Native General Library. His house at Walkeshwar was directed to be placed in charge of Cutchi Batia Community, who he wishes, should allow it to be used as Sanitarium by those, amongst the high caste Hindus, who wish to reside at Walkeshwar temporarily for reasons of health. He had already performed his funeral rites according to the Hindu Shastras during his life time and hence directed that nothing beyond the cremation of his body according to the vedic rites should be done by his friends and relatives whom he strictly warned not to shed a drop of tear and prohibited any female taking part in the ceremony lest she might violate his wish. He passed away on the 16th of March 1888, when everything according to his wish was done by his friends.

By the death of Pandit Bhagwanlal Indrajī, India lost one of the greatest Archæologists, a conscientious worker, a true votary of science and an ardent lover of truth. He pursued knowledge under difficulties purely for its own sake without

any regard to the ultimate advantages. He pursued it ardently, steadily and with remarkable success. For the sake of knowledge he spent days and nights in lonely jungles, in caves and monasteries, in dangerous forests, irrespective of the heat or cold, hunger or thirst, comfort or discomfort.

He was very simple in his habits and unaffected in his demeanour. One could hardly believe that behind his humble exterior there lay high qualities of head and heart. He had very high ideas of the greatness of human mind and of the righteousness of man's soul and was himself a living example of the same. In short he combined in himself the mildness and urbanity of a Hindu, with the steadiness, patience and inquisitive spirit of a German, the ceaseless activity and energy of an Englishman, and the serenity and contemplative turn of mind of a Jain Tirthamkara.

It is not possible to dwell at his qualities and achievements at a greater length than this. Those who wish to study in greater details may refer to Vol. XVII of the Journal of the Bombay Branch of the Royal Asiatic Society, wherein a paper or an obituary note entitled "The Memoirs of the Late Pandit Bhagwanlal Indraj" is published by his friend and admirer, Mr. Jhaverilal Umashankar Yajnik, a free use of which is made in presenting this article to the readers of this Volume.

પાંડરશીંગાના ભીંત ચિત્રો—

રવિશંકર મહાશંકર રાવળ

૧૮ મી સદી સુધી હિંદુસ્તાનમાં ચિત્રકળા કેટલી લોકપ્રિય હતી તેનું સુંદર દૃષ્ટાંત કાઠીઆવાડના દામનગર પાસે આવેલા પાંડરશીંગા નામના ગામડાના એક શિવાલયમાંથી ઉપલબ્ધ થાય છે. અજન્તાનો યુગ આશમી ગયા પછી પણ ચીંથરેહાલ અનેલી ચિત્રકળાને સમાજના ઉંચા નીચા ઘરોમાં અનેક પ્રકારે સ્થાન અને સંરક્ષણ મળ્યું તેના છૂટાં છૂટાં નમુના ગુજરાત અને રાજસ્થાનના ઘરોની દિવાલપર અને કાંઈકાંઈ દેવમંદિરોમાં સલાટીકલમે આલેખાયલા પડ્યા છે. તેમાં જાણીતી કથાઓ કે લોકપ્રિય નાયક નાથીકાના કાલાં ઘેલાં સ્વરૂપો ઠાંસી દીધાં છે. પણ ચિત્રકળાનો હેતુપૂર્વક કથાનક માટેજ ઉપયોગ થયો હોય તેવા સ્થળો ગુજરાતમાં કે કાઠીઆવાડમાં બહુજ વિરલ છે.

ધણા વખત પહેલાં સિહોરના રાજમહેલમાં ચીતરાએલી ચીતળની લડાઈમાં ખરેખર બનેલા એક પ્રસંગનું વાસ્તવિક દર્શન આપવાનો પ્રયાસ થયો છે. આ ચિત્રો ભાવનગર રાજ્ય તરફથી એક ગંજફાફે બહાર પાડવામાં આવ્યા છે. તેમાં આલેખનની જે છ શૈલીનો પ્રયોગ કરવામાં આવ્યો છે; તેવાજ પણ કલ્પના અને વાસ્તવિકતા વચ્ચે રૂપરૂપલા નાખવાનો એક અનોખો પ્રકાર પાંડરશીંગાના ચિત્રોમાં દેખાય છે. આ ચિત્રોપર લેખક તરફથી વડોદરા રાજ્યનું ધ્યાન ખેંચવામાં આવ્યું હતું અને તેમાં રસ ધરાવતા અધિકારીઓએ તેની ઐતિહાસિક તેમજ કલાના સામાજિક પ્રકાર તરીકેની લાયકાત પ્રમાણી છે. પણ એ ચિત્રોને યોગ્ય રીતે સાચવી રાખવા અથવા ‘ટ્રેસીંગ’ ઉતારી કાયમી નોંધ કરવાની કાંઈ તજવીજ થએલી જણાઈ નથી. આ ચિત્રો જે શિવાલયની અંદરની તેમજ બહારની ભીંતપર આલેખાએલા છે તેનું છાપડું જર્જરિત થઈ ગયું છે. બહારની ભીંત પવન, વરસાદ, તડકો અને એજાપ્રિય માનવીઓના લયથી મુક્ત નથી. એટલે તેના લવિષ્યવિશે ઘણીજ શંકા રહે છે. એ શિવાલય પાંડરશીંગામાં ‘વિશ્વંભરનાથનું મંદિર’ એ નામે ઓળખાય છે. ૨૪ ચોરસ ફીટના ઓટલાપર ૬૥ ફીટની ફરતી પડાળી વચ્ચે શિવાલયની ભીંતો ઉભી છે. પડાળીની ધારપરની થાંભલીઓ સુધી શિવાલયનું છાપડું લંબાયું છે. કાંઈ અજાણ્યાને ખ્યાલ પણ ન આવે કે અહિં ૧૦૦ વર્ષ પહેલાના સમાજે પોતાની જીવનભાવના ભીંતપર ચિતરી મૂકી હશે.

૧૯૩૪ માં મારા એક કુટુંબીની જન પાંડરશીંગા ગઈ ત્યારે મને ત્યાં જવાનો પ્રસંગ પ્રાપ્ત થયો. સાંજે કેટલાક ભાવિક વૃદ્ધજનોને નિત્યનિયમ તરીકે ગામ બહાર આવેલા શિવાલય તરફ જતાં જોઈ હું પણ પગફેર નિમિત્તે તેમની સાથે વિશ્વંભર-

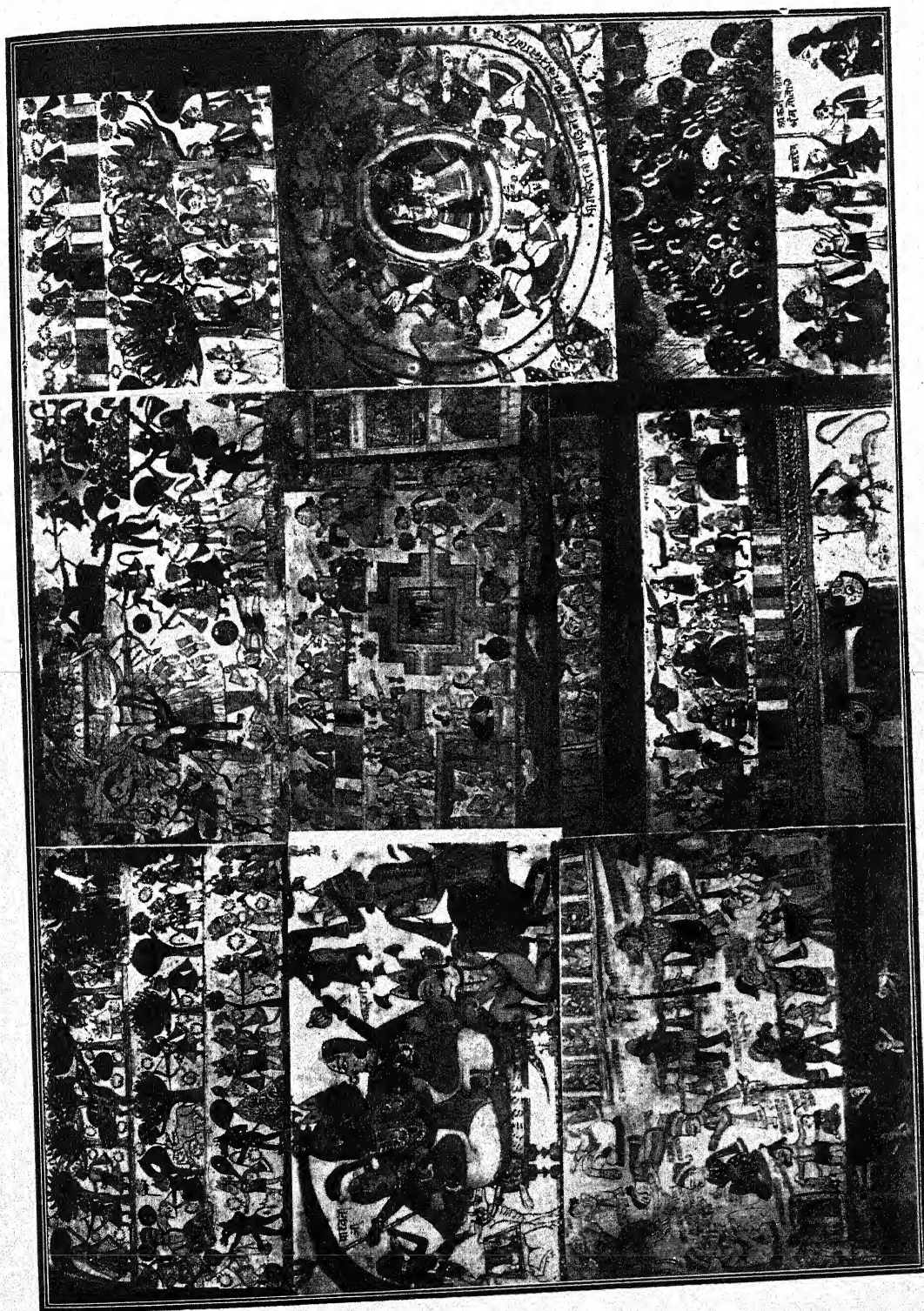
નાથના મંદિરમાં ગયો. અને લીંતપરના આ ચિત્રો તરફ માફ સહજ ધ્યાન ગયું. વધુ વિગતથી ચિત્રો જોતાં તેના પુરાણપ્રસંગો અને યજ્ઞાદિ પ્રસંગોમાં મિશ્રિત કરેલા શ્રદ્ધાળુ યજ્ઞમાનોના ચિત્રોથી વિશેષ કુતુહલ ઉત્પન્ન થયું. દીવાની મદદથી અંદરના ચિત્રો વધુ જોવા માંડ્યા. જોતાં જોતાં આ અપભ્રંશ શૈલીની ચિત્રકળામાંથી પણ પ્રસંગતું વાતાવરણ અને કથાનક બહુ સુસ્પષ્ટ થતાં લાગ્યાં અને એજ કારણે આ ચિત્રોમાં સામાજિક ઇતિહાસ અને કળાતત્ત્વ ચોક્કસ પણે ભજેલાં છે, એવી પ્રતિતી થઈ. એ વિશે પહેલોજ પત્ર વડોદરા રાજ્યના ઉત્સાહી આસી. એકઝી. એન્જનીયર શ્રીમાન તલવળકર સાહેબને લખ્યો. તેમણે એ વાતપર ધ્યાન આપી એ ચિત્રોના સંરક્ષણ માટે પૂજારી અને ગ્રામપંચાયતે હુકમો આપ્યા છે એવું જણવામાં આવ્યું છે. પરંતુ એ ચિત્રોની તવારિખ મેળવવાનું કંઈ બન્યું નથી. મેં જાતે ઘણાંને તે મેળવી આપવા લખેલું પણ ચિત્રોમાંજ કેટલાક નામો છે તેથી વધુ કાઈ કરી શકતું નથી.

ચિત્રોમાં રામાયણ, ભાગવત અને યમલોકના વિવિધ વર્ણનો છે. ચિત્રો કરાવનારા યજ્ઞમાનો પોતે સમુદ્રમંથનમાં ભાગ લેતા દેખાય છે. એક યજ્ઞ થાય છે. તેમાં પણ કેટલાક પોલીયા અને વણીક ગૃહસ્થોના નામો છે. એ પરથી લાગે છે કે પંચની ઇચ્છા અને આજ્ઞાથી આ દેવાલય અને ચિત્રકામ કરવામાં આવ્યું હશે.

અસ્ત પામતી મધ્યયુગની આ ચિત્રકળા આજના પ્રેક્ષકને ઘણો વિનોદ આપે છે. ચિત્રકાર, રામ અને લક્ષ્મણને મુકુટ અને વિભીષણને અંદરકાંડાની માંગરોળી પાઘડી પહેરાવે છે. કેટલાક દેવોને ઘોઢારી ખોખું પણ ચડાવી દે છે. તેની અપ્સરાઓ ને પાંખો આવી ગઈ છે. એટલે ધરતી બેહીસ્ત અને હિંદતું સ્વર્ગ એકાકાર થયાની એ નિશાની છે.

આ ચિતારાને ‘પર્સપેક્ટીવ’ કે સ્થળાન્તરના ભેદ નડતાજ નથી. તેને મન લીંત એક ચોપડીજ છે. એક પ્રસંગ પુરો થાય કે તુરત લીટીની હદ મારીને જે જગ્યા મળી તેમાં નવો પ્રસંગ શરૂ કરી દે છે. અને તેમાં જરૂર લાગે તો, ગમે તેટલાં માનવી સમાવવા કદ બદલી નાખે છે—જેમ કાગળમાં આપણે આડું અવળું લખાણ ભરવાની છૂટ લઈએ છીએ. તેમ ચિત્રકાર ચિત્ર કરીને દરેક પાત્ર આગળ તે શું ક્રિયા કરે છે તેની અક્ષર નોંધ પણ કર્યા વિના રહ્યો નથી. એથી પણ વાંચતા રમજ મળે છે.

ચિત્રો જોતાં જોતાં આપોઆપ પુરાણ, ભાગવત અને રામાયણ યાદ આવે છે. ભોળા ભાવિક ગ્રામજનોને એ સૃષ્ટિવાસ્તવિકતાનોજ ખ્યાલ આપતી હશે. અને તેમનાં જીવન સ્વપ્નોને વધુ સચોટ અને જીવંત બનાવતી હશે, એમાં શંકા નથી. પુરાતત્ત્વ ઇતિહાસ અને અવશેષોના અભ્યાસ પછી પણ કયા વિદ્વાન કહી શકે તેમણે મૂળ સત્યનું દર્શન કર્યું છે ? તો પછી ગ્રામજનોએ નિમ્નનંદ માટે ઉપજીવેલી આ લાવના સૃષ્ટિ ભલેને અમર રહે !



पांडुरशींगाना बतित चित्रो.

અહિચ્છત્ર જ્ઞાતિ

લેખક. શ્રી. દુર્ગાશંકર શાસ્ત્રી

પં. ભગવાનલાલ ઇન્દ્રજી કાઠીઆવાડ ગુજરાત અને રાજપૂતાનામાં જે જ્ઞાતિની અઢી હજારને આશરે વસ્તી છે તે પ્રશ્નોરાનાગર બ્રાહ્મણ નામની જ્ઞાતિમાં જન્મ્યા હતા. આ પ્રશ્નોરાજ્ઞાતિ છ નાગર જ્ઞાતિઓમાંની એક ગણાય છે. અને મૂળ એક નાગરજ્ઞાતિના બ્રાહ્મણોને ઇ. સ. ૧૧ માં શતકમાં અજમેરના ચોહાણરાજા વીશલદેવે વીશલનગર વસાવી વીશલનગર વગેરે ગામો દાનમાં આપ્યાં ત્યારથી વડનગર, વીશનગર, સાકોદરા વગેરે નાગરજ્ઞાતિઓ ભુદી પડી એવો કેટલાક વિદ્વાનોનો મત છે.^૧ પણ આ મતને શ્રુત પરંપરાથી વિશેષ આધાર નથી. વળી વડનગર, વીશનગર, વગેરે નામનાં ગામો મળે છે. જ્યારે 'પ્રશ્નોરા' નામનું મૂળ કહી શકાય એવાં કોઈ નામનો હજી સુધી પત્તો લાગ્યો નથી. ગુજરાતના સોલંકી રાજા ભીમદેવનું સં. ૯૩ (ધણું ૧૦૯૩) નું એક તામ્રપત્ર મળી આવ્યું છે જેમાં પ્રસન્નપુર સ્થાનમાંથી નીકળેલા વસ્ત્રગોત્રના દામોદરના પુત્ર ગોવિંદને દાન આપવામાં આવ્યું છે.^૨ આ દાનપત્રના પ્રસન્નપુરના બ્રાહ્મણો તે ગુજરાતના પ્રશ્નોરાનાગરો જેઓમાં વસ્ત્રગોત્ર સામાન્ય છે તેઓ કદાચ હોય. મતલબકે પ્રશ્નોરાજ્ઞાતિનો પ્રસન્નપુર સાથે કાંઈક સંબંધ હોવાની કલ્પના હમણાં શ્રી. રસિકલાલ પરીખે કરી છે.^૩ પણ 'પ્રસન્નપુર'માંથી 'પ્રશ્નોરા' કેવી રીતે નીકળે એ એક મુશ્કેલી છે. અને પ્રશ્નોરા તરીકે હાલમાં જે જ્ઞાતિ ઓળખાય છે તે જ્ઞાતિનું જૂનું નામ અહિચ્છત્રા કે અહિચ્છત્ર જ્ઞાતિ છે. અત્યારે પણ પ્રશ્નોરાઓ પોતાની જ્ઞાતિનું જૂનું નામ અહિચ્છત્ર જ્ઞાતિએ જાણે છે. વિવાહનાં પ્રશ્નોરાજ્ઞાતિમાં ગવાતાં અમુક ગીતોમાં પણ અહિચ્છત્ર નામ મળે છે. દા. ત. ચઘોરે અહિચ્છત્રો રાણો રાજિયો. પ્રશ્નોરાનાં (ગીતો પૃ. ૭૯.)

અને પ્રશ્નોરાઓનાં જુનાં લખાણોમાં પ્રશ્નોરાજ્ઞાતિનો ઉલ્લેખ જ મારા જ્ઞેવામાં નથી આવ્યો. બધા પોતાની અહિચ્છત્ર જ્ઞાતિજ લખે છે. વિ. સં. ૧૭૯૪ માં ગુજરાતીમાં ગરબો લખનાર ભાલના પ્રશ્નોરા લાલજીભટ્ટ પોતાને વિષે 'અહિચ્છત્રા ઉજળી નાત' કહે છે. એજ અરસામાં જામનગરના પ્રશ્નોરા મુકુંદજી ભટ્ટે ભાગવતનો

૧ આ વીશલદેવ રાજા તે ગુજરાતનો વીશલદેવ એવી માન્યતા પહેલાં હતી. જુઓ મણિલાલ નાથુભાઈકૃત ગુજરાતના બ્રાહ્મણો પૃ. ૯ પણ ઉપરનો મત શ્રી. માનશંકર પી. મહેતાનો છે. જુઓ નાગરોદ્ધત્તિ પૃ. ૯૪ તથા પૃ. ૧૫૪ ટિ. ૧૧.

૨ ગુ. ઐ. લે. ભા. ૨ પૃ. ૮૩.

૩ કાવ્યાનુશાસનની નવી આવૃત્તિનો ઉપોદ્ધાત પૃ. ૧૩૫.

નવમસ્કંધ સટીક ઉતારી તેની સમાપ્તિમાં પોતાની ઓળખાણ નીચેપ્રમાણે આપી છે.—

સંવદૂપરસાદિભૂપરિમિતે માસે શુભે ફાલગુને ।
પક્ષે કૃષ્ણદિને ક્ષણં પ્રતિગતે ચન્દ્રે ચ ષષ્ઠ્યાં તિથૌ ।
જાતો યો ભુજગાતપત્રસુકુલે નામ્ના મુકુંદો દ્વિજઃ ।
તેનેયં લિખિતઃ સટીક નવમસ્કંધો નવીનેપુરે ॥

મતલબકે સં. ૧૭૯૧ માં ‘ભુજગાતપત્ર’ એટલે અહિચ્છત્ર કુળના મુકુંદ બ્રાહ્મણે નવા નગરમાં સટીક નવમસ્કંધ લખ્યો છે.

એ મુકુંદભટ્ટનાજ પુત્ર ગોવર્ધનભટ્ટે વેદાન્ત કલ્પલતિકા નામનો અન્ય ઉતારી તેની સમાપ્તિમાં લખ્યું છે કે.—

સંવત્ ૧૭૮૫ વર્ષે આષાઢસિતનવમીશુક્લે શ્રીમથુરાનગર્યાં અહિચ્છત્રનાગરજ્ઞાતિયેન-
ગોવર્ધનેન વેદાન્ત કલ્પલતિકેયં સાર્ધં શિષ્યવિશ્રામેણતૂર્ણં લિખિતા ।

સંવત્ ૧૭૮૪ માં લખાયેલ, વિદ્યાપતિના પુરૂષપરીક્ષા અન્યની એક હાથ-પ્રતના અન્તમાં નીચેપ્રમાણે શબ્દો છે:—

સં. ૧૭૮૨ શકે ૧૬૪૭ માર્ગશીર્ષ માસે કૃષ્ણપક્ષે પંચમી સોમવારે પુરૂષપરીક્ષ-
પુરોહિતં લિખિતં ॥ નૂતનપુરે નિવાસસ્ય અહિચ્છત્ર નાગરજ્ઞાતિયમેતાશ્રી જનાર્દનાત્મજ શ્રી
વિઠ્ઠલજીસુત શિવજીકેન અયં અલેખિ ।

વધારે ઉતારાની જરૂર નથી. પ્રશ્નોરા ઉર્ફે અહિચ્છત્રા જ્ઞાતિનું મૂળ અહિચ્છત્ર નામમાં શોધવું યોગ્ય છે. એ દ્વિલિતાર્થ નિઃસંદેહ છે.

હવે અહિચ્છત્ર નામનાં જુના વખતમાં એક કરતાં વધારે સ્થાનો હતાં એમ હાલમાં એની શોધખોળ કરનારા વિદ્વાનોએ નક્કી કર્યું છે. પણ એ શોધખોળની જ્યારે માહિતી ન હતી ત્યારે પ્રશ્નોરા જ્ઞાતિના સંસ્કૃતજ્ઞાનવાળા પંડિતો મહાભારતમાં જેનું વર્ણન મળે છે તે ઉત્તર પાંચાલ કે અહિચ્છત્ર દેશની રાજધાની અહિચ્છત્રપુર તેજ પ્રશ્નોરાનું મૂળ સ્થાન એમ માનતા એટલુંજ નહિ પણ પોતાને દ્રોણાચાર્યના વંશજ કહેતા. આ માન્યતાનું મૂળ મહાભારતમાંથી મળે છે. મહાભારતમાં આદિ-પર્વમાં કથા છે કે—પાંડવો અને કૌરવોના ગુરૂ દ્રોણાચાર્ય જ્યારે બાળક હતા,

૧ જુઓ માફે લખેલું ઝંડુભટ્ટજીનું જીવન ચરિત્ર પૃ. ૪. મૂળ હસ્તલિખિત પુસ્તક સ્વ. મ. મ. શંકરલાલશાસ્ત્રીના ઘરમાં મોરબીમાં છે.

૨ એ જન પૃ. ૫ આ પુસ્તક ઉપરને સ્થળેજ છે.

૩ આ હાથપ્રત શ્રી. વિશ્વનાથ પ્ર. વૈદ્ય બી. એ., જે. પી. બાર-એટ-લોના પુસ્તક-સંગ્રહમાં છે અને તેઓ એજ મને એક પત્રમાં ઉપરની પુષ્ટિકા લખી મોકલી છે.

૪ અહિચ્છત્ર એક કરતાં વધારે હોવાની નોંધ માટે જુઓ નાગરી અચારિણી-પત્રિકા ભા. ૨, પૃ. ૩૨૬ ની ટીપ ૩.

ત્યારે તેઓ પાંચાલના રાજા દુપદ સાથે પોતાના પિતા ભરદ્વાજ પાસે ભણતા હતા. આ વિદ્યાર્થી-અવસ્થામાં દુપદને દ્રોણસાથે નિઃસ્વાર્થ પ્રીતિબંધાર્થ અને આલ્પસુલભ ઉદારતાથી દુપદે દ્રોણને કહ્યું કે હું રાજા થઈશ ત્યારે તને મારા રાજ્યનો અર્ધો ભાગ આપીશ. કાળાંતરે દુપદ વિદ્યાર્થી-અવસ્થા પૂરી કરી પોતાના રાજ્યમાં ગયા અને પાંચાલના રાજા થયા. બીજી તરફથી દ્રોણ ગૃહસ્થ થયા પણ અપરિગ્રહ ધર્મપાળનાર દ્રોણની આર્થિક સ્થિતિ એવી ખરાબ રહેતી કે એનાં બાળકોનો જીવન-નિર્વાહ બહુ કષ્ટથી થતો હતો. તેનાં બાળકોને પાણીમાં લોટ મેળવી એને દુધ તરીકે આપવામાં આવતું. પોતાનાં પરિજનનાં આ કષ્ટથી પ્રેરાઈને દ્રોણ દુપદ પાસે ગયા અને વિદ્યાર્થી-અવસ્થાની મૈત્રીની યાદ આપી. પણ રાજ્યમંદથી આંધળા બનેલા રાજા દુપદે જવાબ આપ્યો કે “દરિદ્રની ધનવાન સાથે મિત્રતા સંભવતી નથી; હું તને ઓળખતો નથી.”

પોતાની વિદ્યાના ગર્વવાળા સમર્થ દ્રોણે દુપદની આ મદાંધતાને દૂર કરવાનો સંકલ્પ કરીને હસ્તિનાપુર તરફ પ્રયાણ કર્યું અને ત્યાં જઈ પાંડવો તથા કૌરવોને ધનુર્વિદ્યાનો અભ્યાસ કરાવ્યો. અને છેવટ ગુરુદક્ષિણામાં દુપદને હરાવી બાંધી પોતાની પાસે લઈ આવવાની માગણી કરી. દ્રોણના પ્રિયશિષ્ય અર્જુને આ ગુરુદક્ષિણા આપવાની હામભીટી અને દુપદને હરાવી બાંધી દ્રોણ આગળ હાજર કર્યાં.

દ્રોણાચાર્યે પોતાના મિત્રને આ દશામાં જોઈ, ભેટી બ્રાહ્મણ યોગ્ય ઉદારતાથી તેના રાજ્યનો અર્ધો ભાગ તેને પાછો આપ્યો અને અર્ધો ભાગ પોતે રાખ્યો. આ પ્રસંગે દ્રોણે દુપદને જે શબ્દો કહ્યા તથા મહાભારતકારે દ્રોણ અને દુપદનાં રાજ્યની જે શબ્દોમાં સીમા બતાવી તે શબ્દો અહિચ્છન્ન દેશના સ્થાનના સૂચક હોવાથી નીચે ઉતાર્યા છે:—

રાજાસિ દક્ષિણે કૂલે ભાગિરથ્યા હમુત્તરે ।
સખાયં માં વિજાનીહિ પાંચાલ યદિ મન્યસે ॥

મ. આ. અ. ૧૪૦ શ્લો. ૬૯

માકન્દીમથ ગંગાયાસ્તીરે જનપદાયુતાં ।
સોઘ્યાવસીદ્ દીનમનાઃ કામ્પિત્યં ચ પુરોત્તમમ્ ॥
દક્ષિણાંશ્ચાપિ પાંચાલા ન્યાવત્પર્મણ્વતી નદી ।
અહિચ્છન્નં ચ વિષયં દ્રોણઃ સમભિપચત ।
एवं राजन्नहिच्छन्ना पुरी जनपदायुता ॥
युधि निर्जित्य पार्येण द्रोणाय प्रतिपादिता ॥

મ. આ. અ. ૧૪૦ શ્લો. ૭૨ થી ૭૬

આ શ્લોકોથી સ્પષ્ટ દેખાય છે કે જૂના પાંચાલ દેશના એ ભાગ થઈને ગંગાના દક્ષિણકાંઠા ઉપર ચર્મણવતી નદી સુધીનો પ્રદેશ જેનું મુખ્ય શહેર કાંપિત્ય હતું તે દુપદને મળ્યો અને અહિચ્છન્ન દેશ તથા તેની રાજધાની અહિચ્છન્ના પુરી દ્રોણાચાર્યને મળ્યાં.

આ કથા વાંચનાર અહિચ્છત્રા (પ્રત્નોરા) બ્રાહ્મણોએ પોતાને અહિચ્છત્ર દેશના રાજા દ્રોણાચાર્યનાવંશના સ્વાભાવિક રીતે માન્યા. પણ અહીં એક વસ્તુ ધ્યાનમાં રાખવાની છે. આ મહાભારતોક્ત અહિચ્છત્ર દેશનો ઉલ્લેખ પ્રાચીન બ્રાહ્મણ સાહિત્યમાં તેમજ બૌદ્ધ સાહિત્યમાં મળે છે. ઇ. સ. પૂર્વે ૪૦૦ વર્ષથી તે ઇ. સ. ૬૦૦-૭૦૦ વર્ષ સુધી આ અહિચ્છત્ર દેશ અને તેની રાજધાની અહિચ્છત્રા નગરી ખૂબ આબાદ હતાં. એ આખા દેશના વતનીઓ પ્રાચીન રૂઢિ પ્રમાણે અહિચ્છત્ર કહેવાતા. એ દેશના વતનીઓની રહેણી કરણી પવિત્ર હોવાની ખ્યાતિ હતી. કામસૂત્રકાર વાત્સ્યાયન જે. ઇ. સ. ત્રીજા શતકથી અર્વાચીન નથી તે કહે છે કે :—

वेद्याभिरेव न संसृज्यन्ते आहिच्छत्रि काः संसृष्टा अपि मुखकर्म तासां परिहरन्ति ।
વળી પ્રાચ્ય દેશના અને પાટલીપુત્રના વતનીઓ સાથે અહિચ્છત્રના વતનીઓને પણ વાત્સ્યાયન શિષ્ટ ગણે છે. બીજી તરફથી ગાહાસતત્ત્વમાં અહિચ્છત્ર સ્ત્રીઓ મહાપાન કરતી હોવાનો પણ ઉલ્લેખ છે. મતલબકે દ્રોણના વંશજો જ નહિ પણ અહિચ્છત્ર દેશના બધા વતનીઓ પ્રાચીન કાળમાં અહિચ્છત્ર કહેવાતા.

છેક ચીનાઈ યાત્રાળુ યુવાન યુઆંગના વખત સુધી અહિચ્છત્ર આબાદ હતું અને તે દેશના વતનીઓ પવિત્ર સ્વભાવના અને સત્યપ્રિય મનાતાં હતા. (જુઓ બીલ્સ બુલ્ડિજ રેકર્ડ્સ ઓફ ધી વેસ્ટર્ન; વૅડઝ. ૧ પૃ. ૨૦૦).

ઇ. સ. સાતમા શતક પછી અહિચ્છત્ર પડી ભાંગ્યું. અત્યારે રોહિલખંડના બરેલી જિલ્લામાં જે રામનગર છે ત્યાં પ્રાચીનકાળમાં આ પાંચાલનું અહિચ્છત્ર નગર હતું.

આ મહાભારતકાલીન અહિચ્છત્રના બ્રાહ્મણ વતનીઓમાંથી કોઈ એકાદ જથ્થાએ પોતાના મૂળ વતનનું નામ જળગવી રાખ્યું અને એ જથ્થા તે હાલના પ્રત્નોરા બ્રાહ્મણો; એ રીતે પ્રત્નોરાજાતિના અહિચ્છત્ર નામનો એક ખુલાસો થઈ શકે પણ સાતમા શતકમાં કે તે પછી બરસો ત્રણસો વર્ષ સુધી પણ બ્રાહ્મણ વર્ણમાં સાંતિભેદ ઉપન્ન થયો ન હતો આખા બ્રાહ્મણ વર્ણનો એકજ જથ્થો હતો, અને જથ્થાનો ભેદ ન હોય ત્યાં અમુક નાના જથ્થામાં આવું નામ જળવાઈ રહેવાનો સંભવ ઓછો છે.

વળી અહિચ્છત્ર નામનાં જુના વખતમાં એક કરતાં વધારે શહેરો હતાં. વિવિધ તીર્થ કલ્પ જેવા જૈન ગ્રંથોમાં જંગલદેશમાં એક અહિચ્છત્રપુર હોવાના ઉલ્લેખો મળે છે. આ જંગલદેશનું અહિચ્છત્રપુર તે જોધપુર રાજ્યના ઉત્તર વિભાગમાં આવેલું હાલનું નાગૌર, એમ પં. શ્રી.ગૌ.હી. ઓઝા કહે છે, પણ નાગૌરને અહિચ્છત્ર

૧ જુઓ મારો ગુજરાતનો મધ્યકાલીન રાજપૂત ઇતિહાસ વિભાગ પહેલો પૃ. ૨૯.

૨ નાગરી પ્રચારિણીપત્રિકા ભા. ૨ પૃ. ૩૨૯ ની ટીપ ૩. ત્યાંજ ભૈરણ મંત્રિના શિલાલેખનો હવાલો સિંધમાં પણ એક અહિચ્છત્રપુર હોવા વિષે આપ્યો છે (એ. ઇ. ગ્ર. ૩ પૃ. ૨૩૫). આ ત્રણ ઉપરાંત પણ અહિચ્છત્રપુરના ઉલ્લેખ મળે છે (જુઓ મુ. મે. ગ્ર. ૧ ભા. ૨ પૃ. ૫૬૦ ટિ. ૧૧).

૩ ના. પ્ર. પ. ભા. ૨ પૃષ્ઠ ૩૨૯ તથા તેની ટિ. ૪

કરાવવા માટે એમણે જે ફલીલો કરી છે તે મને તો ગળે ઉતરતી નથી. છતાં નંગલ-દેશમાં એક અહિચ્છન્નપુર હોવાની અને તે સાંભરથી બહુ દૂર ઘણું કરી ન હોવાની વાત હું સ્વીકારું છું.

જે અહિચ્છન્નપુરના વત્સગોત્રી વિપ્રસામંતને બીજોરયાના સં. ૧૨૨૬ ના લેખમાં અજમેરના ચોહાણ કુળનો મૂળપુરુષ કહ્યો છે તે આ નંગલદેશનું અહિચ્છન્ન હોવું જોઈએ.

અહિચ્છન્નના બ્રાહ્મણ વિષે એક બીજો પણ ઉલ્લેખ મળે છે.

ધારા નગરીના પ્રખ્યાત ભોજરાજના કાકા મુંજના વિ. સં. ૧૦૩૧ ના દાન પત્રમાં શ્રી ધનિક પંડિતના પુત્ર વસંતાચાર્યને દાન આપ્યાનો લેખ છે. જેમાં વસંતાચાર્યને અહિચ્છન્ન વિનિર્ગત કરેલ છે.^૧ આ લેખ ઉપરથી વિ. સં. ના ૧૧ માં શતક સુધી અહિચ્છન્ન આખાદ હતું અને ત્યાંના બ્રાહ્મણો બીજે માળવા વગેરેમાં પોતાને અહિચ્છન્નના બ્રાહ્મણ કહેતા હતા. આ વસંતાચાર્યનું અહિચ્છન્ન તે પાંચાલનું કે નંગલદેશનું એ ચોક્કસ કહેવું મુશ્કેલ છે. પણ પાંચાલનું અહિચ્છન્ન સાતમા શતક પછી ભાંગી પડ્યું હતું અને માળવા ગુજરાતમાં રાજપૂતાનાના ઘણા ભાગમાંથી વસ્તી ઉતરી આવી છે એ સ્થિતિ જોતાં આ અહિચ્છન્ન નંગલદેશનું અહિચ્છન્ન હોવાનો સંભવ મને લાગે છે.

હવે આ વસંતાચાર્યને ‘અહિચ્છન્ન વિનિર્ગત’ કહ્યા છે, અને ચોહાણના મૂળપુરુષ સામંતને અહિચ્છન્નનો વત્સગોત્રી બ્રાહ્મણ કહેલ છે^૨ એટલાજ ઉપરથી એ બે પ્રશ્નોરા હતા એવું સિદ્ધ નથી થતું. છતાં પ્રશ્નોરા જ્ઞાતિમાં વત્સગોત્ર પ્રધાન છે. એ જોતાં નંગલદેશના અહિચ્છન્નના બ્રાહ્મણોના જે જથ્થામાંથી જ્ઞાતિઓ જુદી પડ્યા પહેલાં ઉપલા બેય બ્રાહ્મણો નીકળેલા તે જથ્થામાંથી પાછળથી અહિચ્છન્ન જ્ઞાતિ થઈ એટલું માનવામાં વાંધો નથી.

અહિચ્છન્ન જ્ઞાતિના ઇતિહાસમાં આગળ ચાલતાં નાગરખંડની નીચેની કથા જોવા જેવી છે. હાટકેશ્વરક્ષેત્રના ચમત્કારપુરમાં વત્સગોત્રનો બ્રાહ્મણ ચિત્રશર્મા વસતો હતો. એ બ્રાહ્મણના મનમાં ચમત્કારપુરમાં હાટકેશ્વરની પ્રતિષ્ઠા કરવાની ઇચ્છા થવાથી તેણે શંકર ઉપર તપ કરીને વરદાન મેળવી, ચમત્કારપુરમાં હાટકેશ્વરના સુવર્ણલિંગની સ્થાપના કરી અને એક લઘ્ય મંદિર બંધાવ્યું.

બીજા બ્રાહ્મણોને તેની ઇર્ષ્યા આવવાથી તેઓએ પણ દુશ્વર તપશ્ચર્યા કરી અને શંકરના પ્રસાદથી દરેક ગોત્રના બ્રાહ્મણે એકએક શંકરનું મંદિર બંધાવી, ૬૮ ગોત્રના બ્રાહ્મણો એ ૬૮ તીર્થો બાંધ્યાં. ^૩

૧ ઇન્ડિઅન એન્ટીકવેરી ગ્ર. ૬ પૃ. ૫૧, ૫૨.

૨ વડનગરના વૈજવાપગોત્રના બ્રાહ્મણ ગુહિલથી મેવાડના ગુહિલોનો વંશ ચાલ્યો હોવાનો દાખલો તો પુરાવિદોમાં ખૂબ ચર્ચામાં છે. જુઓ મેવાડના ગુહિલો. માનશંકર પી. મહેતાકૃત.

૩ નાગરખંડ અ-૧૦૭

ઉપર કહેલું ચમત્કાર પુરતેજ વડનગર અને વડનગરમાં હાટકેશ્વર પૂજનો પ્રચાર કરનાર વત્સગોત્રનો આદ્યજી હતો એવું ઉપલી દંતકથા કહે છે. અને વત્સગોત્ર વડનગરા નાગરોમાં નથી જ્યારે પ્રશ્નોરામાં મોટા પ્રમાણમાં છે. એ ઉપરથી એમ અનુમાન થાય કે હાટકેશ્વરપૂજનો વડનગરના નાગરોમાં પ્રચાર થયો ત્યારે અહિંચત્રા કે પ્રશ્નોરા આદ્યજીનાં પૂર્વજો ત્યાં હતા. વડનગરના એ બધા હાટકેશ્વર પૂજક આદ્યજી એકજ જથ્થાના હતા પછી એ જથ્થાના આદ્યજી જુદેજુદે સ્થળે ગયા અને વડનગરા વગેરે નાતોના નાના જથ્થાઓ બંધાયા. વડનગરા જ્ઞાતિનો પ્હેલો સ્પષ્ટ ઉલ્લેખ વિ. સં. ૧૦૦૫ ના એક તામ્રપત્રમાં છે.^૧ એ જ્ઞેતાં વડનગરા જ્ઞાતિ દશમા શતકથી જુદી પડી એમ માની શકાય. અહિંચત્રા કે પ્રશ્નોરા જ્ઞાતિ તે પછી સો બસો વર્ષે જુદી પડી હોવાનો સંભવ છે. જે કે ઉપર કહેલું તેમ ૧૦૩૧ નો અહિંચત્ર વિનિર્ગત આદ્યજીનો ઉલ્લેખ મળ્યો છે જ્યારે તે પછી બસો વર્ષે ૧૬૪૫ માં અહિંચત્ર જ્ઞાતિનો પ્હેલો ઉલ્લેખ હજી સુધી જોવામાં આવ્યો છે. અને તે કાશીમાં વસતા મંત્રમહોદધિ નામના જ્યોતિષના ગ્રન્થના કર્તા મહીધર ભટ્ટે પોતાના ગ્રન્થને અન્તે નીચેના શબ્દોમાં કરેલો છે:—

અહિંચત્રો દ્વિજચ્છત્રો વત્સગોત્રસમુદ્ભવઃ ।

આસીદ્રલાકરો નામ વિદ્વાન્ધ્યાતો ધરાતલે ॥

તત્તનુજો રામમત્તઃ

મહીધરસ્તદુત્પન્નઃ સંસારાસારતાં વિદન્ ।

નિજદેશં પરિત્યજ્ય ગતો વારાણસીં પુરીમ્ ॥

આ મહીધર ભટ્ટના^૨ દાદા રત્નાકર આજથી લગભગ ચારસો વર્ષ પ્હેલાં થઈ ગયા. અહિંચત્ર જ્ઞાતિનાં જુદાંજુદાં કુળોના જે આંખાઓ મળે છે તે પણ ત્રણસોથી ચારસો વર્ષ સુધી પોચે છે. એટલે એ જ્ઞાતિનું ચારસો વર્ષનું આયુષ્ય તો ચોક્કસ છે. પણ આ મહીધર ભટ્ટનો નિજ દેશતે કયો? કાઠીઆવાડના વત્સગોત્રી અહિંચત્રાઓ કાઠીઆવાડ માને છે પણ કશો પુરાવો નથી. વળી ભોળાદના એક વત્સગોત્રી કુળના આંખામાં એકત્રીસ બત્રીશ પેઢીનાં નામો છે. એમાંથી જૂનાં નામો જે કાઠીજૂની સાલવાળી હાથ પ્રતોમાં મળતાં હોત તો એ ધણો કીમતી ગણાત. પણ કેવળ નામોજ મળે છે. છતાં ત્રીસ-બત્રીશ પેઢીથી એટલે બસો સાતસો વર્ષથી અહિંચત્ર નાગરજ્ઞાતિ ગુજરાત કાઠીઆવાડમાં વસે છે એટલી વાત સિદ્ધ હકીકત માનવામાં વાંધો નથી.

૧ પુરાતત્વ પુ. ૨ ૫-૪૪-૪૫ અને એ-ઈ-૩-૧૬-૫-૨૪૧

૨ આ મહીધર ભટ્ટનું કુટુંબ સાક્ષર હતું. એમના પુત્ર કલ્યાણભટ્ટે બાલતંત્ર નામનો વૈદ્યગ્રંથ વિ. સં. ૧૬૪૪ માં લખ્યો છે. અને પૌત્રના પૌત્ર તર્કવાગીશ કવિ વેણીદત્તે વિ. સં ૧૭૭૪ માં રસતરંગિણીની રસિકરંજનીનામની ટીકા અને અલંકાર ચંદ્રોદય નામનો એક ગ્રન્થ લખ્યો છે.

પં. ભગવાનલાલ ઇન્દ્રજી

લેખક, દુર્ગાશંકર કે. શાસ્ત્રી

પં. ભગવાનલાલ ઇન્દ્રજી જૂનાગઢ (કાઠીઆવાડ) ના પ્રશ્નોરા નાગર બ્રાહ્મણ હતા. એમના કુળનું જે વંશવૃક્ષ મળ્યું છે, તેમાં મૂળ પુરુષનું નામ બાબા છે. પણ તેઓ કયા ગામમાં રહેતા હતા અથવા ક્યારે થઈ ગયા એ નક્કી કરવાનું કાંઈ સાધન નથી. સાધારણ રીતે પ્રશ્નોરા નાગર જ્ઞાતિના જે બીજા આંખાઓ મળે છે તે પણ એકાદ અપવાદ શિવાય આની પેઠે દશબાર પેઢીથી દૂર ભૂતકાળમાં જતા નથી. અને જુદા જુદા આંખાઓના અભ્યાસ ઉપરથી પેઢી દીઠ જે સરેરાશ મેં નક્કી કરી છે તે પ્રમાણે આ મૂળ પુરુષ જે એ વંશનાં વર્તમાન શિશુઓથી ૧૪ મો છે તે સાઝત્રણસો વર્ષ પહેલાં થઈ ગયો હશે એવું માનવામાં વાંધો નથી. મૂળપુરુષથી ચોથી પેઢીએ બે ભાઈઓની બે શાખાઓ જૂદી પડી છે. જેમાંથી એક જામનગર તરફ ગઈ હોય અને બીજી પોરબંદર તરફ ગઈ હોય એમ લાગે છે અને આગળ ચાલતાં જામનગરવાળી શાખાનો એક ફાંટો જામનગરમાં જ રહ્યો અને બીજો મોરબી ગયો. એ મોરબીવાળા ફાંટામાં પ્રસિદ્ધ ગુજરાતી કવિ કેશવલાલ હરિરામ અને ભાવનગર રાજ્યમાં દીવાનના તથા એડમીનીસ્ટ્રેટીવ કાઉન્સીલના પ્રમુખના હોદ્દા સુધી પહોંચીને તથા મુંબઈ સરકારની એક્ઝિક્યુટિવ કાઉન્સીલરનો હોદ્દો ભોગવીને તથા બીજી જાહેર પ્રવૃત્તિઓમાં પુષ્કળ ભાગ લેવાથી સમસ્ત ભારતીય પ્રખ્યાતિ પ્રાપ્ત કરનાર સ્વ. સર પ્રભાશંકર દલપતરામ પટ્ટણી થઈ ગયા. જામનગરવાળી શાખામાં પણ સ્વ. અમૃતલાલ પ્રાણશંકર પટ્ટણીએ આયુર્વેદના એક ઉત્તમ કાટિના ગુજરાતી વિદ્વાન તરીકે ખ્યાતિ મેળવી હતી.

આ કુળની પોરબંદરવાળી જે શાખામાં પં. ભગવાનલાલનો જન્મ થયો હતો તે શાખાના ભગવાનલાલથી ચોથી પેઢીના પુરુષ મીઠાભટ્ટ પોરબંદરમાં રહેતા હતા અને તેઓએ પ્રશ્નોરા જ્ઞાતિમાં પટેલ તરીકે નામના મેળવી હતી. આ મીઠાભટ્ટના પૌત્ર અને ભગવાનલાલના દાદા મુરારજી ભટ્ટ પણ પોરબંદરમાં રહેતા હતા અને જ્યોતિષ વિદ્યા તથા કર્મકાંડના સારા વિદ્વાન તાહ એમ એના પૌત્ર રંગનાથજી ભટ્ટે પોતાના વંશ વર્ણનમાં લખ્યું છે. આ મુરારજી ભટ્ટને ત્રણ પુત્રો થયા. તેમાં સૌથી મોટા ઇન્દ્રજી જૂનાગઢ જઈને રહ્યા અને ત્યાં જ્યોતિષનો ધંધો કરવા લાગ્યા. તેઓનું નાગરોમાં સાદું માન હતું.

આ ઇન્દ્રજી ભટ્ટને પણ ત્રણ પુત્રો હતા. તેમાંથી મોટા કણ્ણાશંકર વ્યાકરણ અને વેદાંતશાસ્ત્રમાં વિદ્વાન હતા અને જૂનાગઢની પાઠશાળામાં શાસ્ત્રી હતા. અને એના પુત્ર સ્વ. હરિદત્ત કણ્ણાશંકર પણ જૂનાગઢમાં શાસ્ત્રી હતા. બીજા પુત્ર રઘુનાથ

કે રૂગનાથજી, તેઓ વૈદ્ય હતા.^૧ અને એમણે એ જમાનામાં જ્યારે વનસ્પતિશાસ્ત્ર શીખવામાટે ગુજરાતીમાં કે સંસ્કૃતમાં કંઈ સાધન ન હતું,^૨ ભણેલા વૈદ્યો પણ દેશી વૈદ્યકમાં વપરાતી વનસ્પતિઓને ઓળખતા નહોતા ત્યારે અંગ્રેજીમાં લખાયેલા વનસ્પતિશાસ્ત્રના જ્ઞાનની મદદ વગર કેવળ પરિશ્રમથી વનસ્પતિનો પરિચય મેળવીને તથા પાછળથી સ્વ. જયકૃષ્ણ ઇન્દ્રજી જેવા પ્રખર વનસ્પતિશાસ્ત્રીની થોડી મદદ લઈને પણ પ્રાન્તીય ભાષાઓનાં નામો તથા મોટેનિકલ નામોવાળા વૈદ્યક ઔષધોની ઓળખાણ આપતો એ વખતે અપૂર્વ કહેવાય એવો નિઘંટસંગ્રહ નામનો ગ્રન્થ સં. ૧૮૯૩ માં પ્રગટ કર્યો છે.

આપણા ભગવાનલાલ એ ઇન્દ્રજી ભટ્ટના સૌથી ન્હાના પુત્ર. તેઓ સં. ૧૮૯૬ ની કાર્તિક શુદ્ધ ત્રીજે (ઇ. સ. ૧૮૭૯ ના નવેમ્બરની ૭ મી તારિખે) જૂનાગઢમાં જન્મ્યા હતા.

એમની કેળવણી વિષે કશી વિગતવાર માહિતી મળતી નથી. પણ એમના દાદા અને પિતા સંસ્કૃતવિદ્યાના જાણકાર હતા અને પિતાતો જૂનાગઢની પાઠશાળામાં શાસ્ત્રીજી હતા એ જોતાં ત્યાંની ધૂળી નિશાળમાં કંઈક પ્રાથમિક શિક્ષણ લીધા પછી તેઓ પોતાના પિતા અને મોટા ભાઈ પાસે સંસ્કૃત ભણ્યા હશે. તેઓ સંસ્કૃત સાં જાણતા એ પ્રસિદ્ધ છે. ખરી રીતે સંસ્કૃતવિદ્યાનોજ એમની પ્રતિભાને પ્રાચીન શોધ-ખોળમાં આધાર હતો. એ વખતે જૂનાગઢમાં અંગ્રેજીશાળા-અંગ્રેજી વનિક્યુલર સ્કુલ કે હાઈસ્કુલ હતી નહિ અને તેઓ રીતસર અંગ્રેજીભાષાનું જ્ઞાન મેળવીજ ન શક્યા. જે થોડું કામચલાઉ અંગ્રેજી લખાણો વાંચી તથા સમજી શકે એટલું જ્ઞાન તેઓએ મેળવ્યું તે અતિ પરિશ્રમથી મોટી ઉમ્મરે પોતાના શોધખોળના કામમાં એ વગર ભારે મુશ્કેલીઓ પડે છે એવું અનુભવીને મેળવેલું.

ખરી રીતે એમના સમવયી કાઠીઆવાડના પ્રજ્ઞોરા નાગરોમાંથી કોઈને અંગ્રેજી જ્ઞાન નહતું. તેવું વર્ષ પહેલાં જન્મેલા પ્રજ્ઞોરા નાગરોને દેવનાગરી લિપિનોજ પરિચય હતો. તેઓ પત્રોપણ દેવનાગરી લિપિમાંજ લખતા. અને સંસ્કૃત સાં જાણનારા તો સંસ્કૃત ભાષામાં પત્રો લખતા.

ટુંકામાં ભગવાનલાલ ભાઈની કેળવણી વિષે એટલુંજ જાણી શકાય છે કે તેઓ પોતાના પિતા કે મોટાભાઈ પાસે સંસ્કૃત શીખ્યા હતા. ભગવાનલાલભાઈ વૈદ્યક પણ સાં જાણતા. અને પ્રજ્ઞોરા જ્ઞાતિના મુખ્ય પરંપરાના ધંધાઓમાં પુરાણ,

૧ એ રૂગનાથજી ઉર્ફે કતાભટ્ટના નિઘંટસંગ્રહને અન્તે આપેલા વંશવર્ણનમાંથી ઉપરનું મુદ્રાજી ભટ્ટના વંશજોવાળું વર્ણન ઉતાર્યું છે.

૨ પં. ભગવાનલાલ ઇન્દ્રજી પાસે શિષ્ય ભાવે રહીને એમની પ્રેરણાથી અને પોતાનાં શુદ્ધિ અને પરિશ્રમથી અંગ્રેજી ભાષાજ્ઞાન અતિ અલ્પ હોવા છતાં, વનસ્પતિ-શાસ્ત્રનું આશ્ચર્યકારક જ્ઞાન મેળવનાર અને ગ્રન્થોદ્ધાર તથા શિક્ષણદાર વનસ્પતિ-વિદ્યાનો ગુજરાતમાં પ્રચાર કરનાર જયકૃષ્ણભાઈ જહાર આવ્યા પહેલાંની સ્થિતિ ઉપર દર્શાવી છે.

જ્યોતિષ અને વૈદ્યક ગણાય છે. પરંતુ એમના મોટાભાઈ રઘુનાથજી ઉર્ફે કતાભટ્ટ જામનગરના પ્રશ્નોરા વૈદ્ય વિકૃલભટ્ટજી (ઝંડુભટ્ટજીના પિતા) પાસે વૈદ્યક શીખ્યા હતા તેમ ભગવાનલાલ ભાઈ કોની પાસે શીખેલા તે જાણવામાં આવ્યું નથી. કદાચ જેમ અનેક તદ્વિદ્યાપાસેથી અનેક વિદ્યાઓ એમણે મેળવી તેમ આ વૈદ્યકજ્ઞાન પણ મેળવ્યું હશે અને પછી આયુર્વેદના ગ્રન્થો વાંચીને વધાર્યું હશે.

પં. ભગવાનલાલને ન્હાનપણમાં જૂનાગઢથી ગિરનાર જતાં આવતાં અશોકના લેખવાળો મોટો પથરો વારંવાર જોઈને એ લખાણ વાંચવાનું કુતૂહલ થયું અને તેની જૂની લિપિ ન ઉકલવાથી જિજ્ઞાસા ધટવાને બદલે વધતી ગઈ. જૂનાગઢમાં કે કાઠીઆવાડમાં જે જૂની પદ્ધતિ પ્રમાણે સંસ્કૃત લખેલા શાસ્ત્રીઓ હતા તેમાંથી તો કોઈને આ પ્રાચીન અક્ષરોનો ઓધ નહતો. જેમ્સ પ્રીન્સેપે ગિરનાર, ધૌલી કપર્દી-ગિરિ વગેરેના અશોકના શિલાલેખોની નકલો પ્રાપ્ત કરી તેના અક્ષરોને મેળવી અશોકકાલીન લિપિ કેવી રીતે ઉકેલી તે આ દેશની પુરાવિદ્યાના ઇતિહાસનું એક રસિક પ્રકરણ છે. પણ અહીં એનું પ્રયોજન નથી. પણ જેમ્સ પ્રીન્સેપે ઇ. સ. ૧૮૩૮ માં પોતાના જર્નલમાં એ પ્રાચીન બ્રાહ્મી લિપિની જે બારાખડી છપાવેલી તેની નકલ આ વિષયોમાં રસ લેનાર કાઠીઆવાડના તે વખતના પોલીટીકલ એજન્ટ કર્નલ લેંગે જૂનાગઢના યુદ્ધિશાળી નાગર બ્રાહ્મણ શ્રી. મણિશંકર જટાશંકરને ઇ. સ. ૧૮૫૪ માં આપી. અને જ્યારે ભગવાનલાલે એ કાગળ જોયો ત્યારે તેણે એની તેલમાં બોળેલા ક્રીણા કાગળ ઉપર છાપ લઈ લીધી, અને તેની મદદથી ગિરનારના શિલાલેખને ઉકેલવાનો પ્રયત્ન કરવા માંડ્યો. પણ શિલાલેખમાં જોડાક્ષરો અને માત્રાઓ વગેરે હોય એ સ્વાભાવિક છે અને ભગવાનલાલને એની ખબર નહતી. પણ એ નિરાશ ન થયા અને મુંબઈ પોતાના ઓળખીતા ઉપર કાગળ લખી ત્યાંથી આ શિલાલેખો જેમાં છપાયા હોય એવાં પુસ્તકો મંગાવ્યાં. અને જર્નલ ઓફ ધી એશીઆટીક સોસાયટી ઓફ બેંગાલ તથા જર્નલ ઓફ ધી રોયલ એશીઆટીક સોસાયટી ઓફ ગ્રેટબ્રિટન એન્ડ આયર્લેન્ડની નકલો મળતાં ભગવાનલાલનો ઉત્સાહ ઘણો વધી ગયો. પછી તો તેઓ છપાયેલા શિલાલેખમાંથી એક એક પંક્તિ તથા તેની નીચે તેનું દેવનાગરી અક્ષરાંતર ઉતારીને એ કાગળ લઈ જૂનાગઢથી બપોર પછી ઉપડે તે ચાર વાગ્યા પહેલાં પથરા આગળ પહોંચી જાય અને ત્યાં પોતે ઉતારી આણેલી પંક્તિ શિલાલેખમાં શોધી વાંચે અને કાંઈ ફેરફાર લાગે તો નોંધી લીએ એ રીતે રોજ ત્યાં જાય અને અંધાડું થાય ત્યાં સુધી રોકાઈ ફરફમાના શિલાલેખના અક્ષરો વાંચે. એમ કરતાં આખો શિલાલેખ એમને ઉકેલી ગયો એટલુંજ નહિ પણ પ્રીન્સેપની નકલમાં જે કાંઈ ખામીઓ હતી તે પણ એમણે પકડી એટલે એમણે આખા લેખની નવી નકલ લીધી.

ધીમે ધીમે ભગવાનલાલનો જૂના અક્ષરો ઉકેલવાનો રસ વધતો ગયો, એની કુશળતા પણ વધવા માંડી. કર્નલ લેંગે ઉત્સાહમાં આવીને અમારો ‘આ ન્હાનો પુરાવિદ’ એમ કહેવા માંડ્યું અને એ વિદ્યારસિક અંગ્રેજના ઉત્તેજનથી એવાજ બીજા અંગ્રેજ અધિકારી એ-કે-ફોર્સેની ભગવાનલાલને ઓળખાણ થઈ અને

ફોબસે ડા. ભાઉ દાજીને પં. ભગવાનલાલની લલામણ કરી. એ વખતે મુંબઈમાં આપુરા વિદ્વાનો અભ્યાસીઓ દેશી ગૃહસ્થોમાં બે જ હતા એમ શ્રી. ઝવેરીલાલ ઉમીઆશંકર યાત્રિક કહે છે. (૧) બાલશાસ્ત્રી જાંબેકર અને (૨) ડા. ભાઉ દાજી.

ડા. ભાઉ દાજીના બોલાવવાથી ભગવાનલાલ ઇ. સ. ૧૮૬૧ (વિ. સં ૧૯૧૮) માં મુંબઈ ગયા. એમના પિતા વિ. સં. ૧૮૧૩ માં મુંબઈ ગયા હોવાની નોંધ મળે છે. બીજા પણ ખાસ કરીને પોરબંદરના પ્રતોનારા બ્રાહ્મણો પોતાના ભાટીઆ યજ્ઞ-માનો મુંબઈ વેપાર અર્થે ગયેલા હોવાથી, આ અરસામાં મુંબઈ જવા લાગ્યા હતા.

ભગવાનલાલ ઇન્દ્રજીએ પોતે કૃત્રી રીતે મુંબઈ ગયેલા તેની નોંધ કરી છે. અમદાવાદ સુધી પોતે બળદ ગાડીમાં ગયા. અમદાવાદથી વલસાડ નવીજ થયેલી રેલગાડીમાં ગયા અને વલસાડથી પગરરતે સામાન પોડીઆ ઉપર ચડાવી ચાલતા ધરમપુર સુધી, અને ત્યાંથી વીશ જણ વચ્ચે ત્રણ ગાડાં, ૧૩ મજૂર અને એક સિપાઈ લઈ નાશિક ગયા અને પાછા ઇગિતપુરીથી રેલવેમાં બેસી મુંબઈ પહોંચ્યા. વઢવાણથી જેઠ વદ બીજે નીકળેલા તે અષાઢ શુદ્ધ ત્રીજે-સોળ દિવસે મુંબઈ પહોંચ્યા.

મુંબઈ ભગવાનલાલ ખાલી હાથે નહોતા ગયા. તેઓ પોતાની સાથે સાઠ ક્ષત્રપ સીક્કાઓ તથા રૂદ્રદામાના તેમજ રકન્દ ગુપ્તના શિલાલેખોની સાચી નકલો લઈ ગયા હતા, એ બધું તેઓએ ડા. ભાઉ દાજીને બતાવ્યું. એ વખતે મુંબઈની રોયલ એશી-આટીક સોસાયટીના પ્રમુખ એચ. ન્યુટન સાહેબ ક્ષત્રપો વિષે નિબંધ તૈયાર કરતા હતા. એટલે તેઓને એ ક્ષત્રપ સીક્કાઓ જેમાં નહાપાનનો એક સીકકો હતો તે ઘણા ઉપયોગી થયા. ભગવાનલાલ ઇન્દ્રજી એ વખતે એટલે પોતાની એકવીશ વર્ષની ઉંમરે પણ એ ક્ષત્રપ સીકકાઓના અક્ષરો ઉકેલતાં શીખી ગયા હતા.

ડા. ભાઉ દાજી પણ ભગવાનલાલ ભાઈની પુરા વિદ્યાવિષયક કામ કરવાની ચીવટ તથા આવડત જોઈને ખુશી થયા અને ગિરનારના મૌર્ય, ક્ષત્રપ અને ગુપ્ત ત્રણેય ઉત્કૃષ્ટ લેખોને ઉકેલવાનું કાર્ય ફરી કરવાની જરૂર ભગવાનલાલના બતાવવાથી ડા. ભાઉ દાજીને ગળે ઉતરી અને તેઓએ ખાસ આ કામ માટે ભગવાનલાલને પાછા જૂનાગઢ મોકલ્યા.

ભગવાનલાલ જૂનાગઢ પાછા ગયા ત્યાં એના પિતાનો સ્વર્ગવાસ થયો, એટલે એનું ઉત્તરકાર્ય કરી, તેઓએ ગિરનારના લેખોનું કામ શરૂ કર્યું. અને પોતે કરેલી લેખોની નકલો લઈ તેઓ પાછા મુંબઈ ગયા. આટલા પરિચયથી અને આટલા કામથી ડા. ભાઉ દાજીને ભગવાનલાલથી એટલો બધો સંતોષ થયો હતો કે તેઓએ ભગવાનલાલને કાયમ માટે મુંબઈ આવીને પોતાની પાસે રહેવાની સૂચના કરી અને ભગવાનલાલભાઈ ઇ. સ. ૧૮૬૨ ના એપ્રિલમાં મુંબઈ આવ્યા એટલે પોતાની નોકરીમાં રાખી લીધા એટલુંજ નહિ પણ એને રહેવા માટે બીજી સગવડ ન થાય ત્યાં સુધી પોતાના બંગલાના કંપાઉન્ડમાં તંબુ નખાવી તેમાં ભગવાનલાલને રાખ્યા. અલબત્ત ડા. ભાઉ દાજી અને ભગવાનલાલ વચ્ચે શેઠ નોકરનો સંબંધ નહોતો પણ એક ધંધામાં ભાગીદારો હોવાનો સંબંધ હતો અને આ ધંધા એટલે પ્રાચીન ભારતીય શાધખોળ.

૩. ભાઉ દાજીએ એ વખતે ભારતીય પુરા વિદ્યાવિષયક અંગ્રેજી ભાષામાં જે જ્ઞાન હતું તે સંપૂર્ણ મેળવી લીધું હતું. એ ઉપરાંત ફ્રેંચ અને જર્મન ભાષામાં આ વિષયમાં જે કાંઈ જાણવા જેવું હોય તેના અંગ્રેજી અનુવાદો કરાવી લીધા હતા. ભગવાનલાલને ૩. ભાઉ દાજીએ પોતાની આ વિજ્ઞાન માહિતીથી સમૃદ્ધ કરી દીધા ત્યારે સામેથી ૩. ભાઉ દાજીને પોતાના દાકતરી ધંધાને અંગે મુંબઈની ખ્હાર ફરી જૂનાં સ્થળો જાતે જોઈ જૂના ઉઝીણું લેખો શોધી ઉકેલી પ્રાચીન ભારતના ઇતિહાસ સંબંધી વિવિધ માહિતી એકઠી કરવાનો સમય નહોતો. ભગવાનલાલે મુસાફરી કરીને શોધખોળ કરવાનું કામ માથે ઉપાડી લીધું. અને આ બેય ભાગીદારોના શ્રમનું ફળ વિદ્વત્તા ભરેલા નિબંધોમાં જગત આગળ રજુ થવા લાગ્યું.

૪. ભાઉ દાજી અને પં. ભગવાનલાલ ઇન્દ્રજીની ભાગીદારીમાં મુંબઈમાં ઉઘડેલી પ્રાચીન શોધખોળની આ પેઢી કેવી ચાલી, તેણે શું શું કામ કર્યું એની વિગતો શ્રી. ઝવેરીલાલ યાસિકના ચરિત્રમાં આપી છે. ઇ. સ. ૧૮૬૩ થીજ પં. ભગવાનલાલની મુસાફરીઓ શરૂ થઈ ગઈ હતી.

દીલગીરી એટલીજ છે કે આ મુસાફરીઓનું તથા મુસાફરીઓ દરમિયાન તેમજ અજનતા, નાશક, વગેરે સ્થળોએ ખાસ જઈને જૂના ઉઝીણું લેખોની નકલે લેવી, તેનું દેવનાગરી અક્ષરાન્તર કરવું તથા અનુવાદ કરવો તથા જૂની મૂર્તિઓ, જૂનાં ચિત્રો, જૂનાં મકાનો વગેરેનાં વર્ણનો લખી લેવાં વગેરેનું, એ વખતે આ દેશમાં મુસાફરી માટે જે સગવડો હતી તે જોતાં ભારે કષ્ટનું તથા અતિ પરિશ્રમ તથા પ્રાચીનલિપિ વગેરેના જ્ઞાન ઉપરાંત તીક્ષ્ણ યુક્તિની અપેક્ષાવાળું જે ઘણું કામ પં. ભગવાનલાલ ઇન્દ્રજીએ વર્ષો સુધી કર્યું તેની વિગતવાર નોંધક્રમાં મળતી નથી. પણ અજનતા જઈને ગુફામાં માંચડો બાંધી સવારથી સાંજ સુધીએ ઉપર બેસીએ ગુફાઓમાંનાં ચિત્રોનું જે વર્ણન પોતે ગુજરાતીમાં લખી લીધેલું તેની એક નોટલુક સુભાગ્યે મને મળી આવી છે અને એ જોવાથી એમના શ્રમનો કાંઈક ખ્યાલ આવે છે. ઘણું કરી મુંબઈ ગેઝીટીઅરના ઉપયોગ અર્થે નાશકની પાંડુગુફાના લેખોની નકલો લેવા માટે, તેઓ જ્યારે બીજીવાર ૧૮૮૨-૮૩ માં નાશક રહેલા ત્યારે સ્વ. વનસ્પતિશાસ્ત્રી જયકૃષ્ણ ઇન્દ્રજી પણ સાથે હતા. અને તેઓ ધણીવાર વાત કરતા કે “ સવારમાં અમે જઈએ, ભગવાનલાલભાઈ લેખોની નકલ લીએ અને પાછો અક્ષરે અક્ષર વાંચીને મૂળ સાથે નકલને મેળવે, લેખ ઉઝીણું હોય ત્યારે માંચડાઉપર બેસી આ કામ કરે, મૂર્તિના પગઉપર લેખ હોય તો એ બરાબર દેખાય માટે મૂર્તિના પગ ધોતાં ધોતાં “ આપણે પૂર્વજન્મે બૌદ્ધ હશું કે શું ? ” એવી ગમ્મત કરે. હું (જયકૃષ્ણ ઇન્દ્રજી) એ વખતે આસપાસની વનસ્પતિ જોઉં. કોઈ નવી વનસ્પતિ મળી આવે તો ભગવાનલાલ ભાઈને બતાવું અને તેના વર્ગ વગેરેની ચર્ચા કરીએ. પછી બપોરે દુધમાં કરેલું ભાતું સાથે આપ્યું હોય તે ખાઈએ અને સાંજે પાંચ ગામમાં જઈએ.”

ઇ. સ. ૧૮૬૩ માંજ નાશક, કાલાં, ભાજન, જૂનાર વગેરે ગુફાના લેખોની નકલો લેવાનું કાર્ય ભગવાનલાલ ઇન્દ્રજીએ કરેલું. પછી ૧૮૬૩ ના અન્તમાં અને

ઇ. સ. ૧૮૬૪ ના આરંભમાં પાંકુરંગ ગોપાલ પાધ્યે સાથે ભગવાનલાલ જ્વેલ મેરના ભાંડારે જોવા સર આર્ટલફીઅરની સૂચનાથી ડા. લાઉ દાજીએ કરેલી ગોઠવણ પ્રમાણે ગયેલા. જ્વેલમીર ભંડારોમાં લેજવાળાં અંધીઆર મકાનમાં ખેસીને કામ કરવાથી ખેચ માંદા પડ્યા. ભગવાનલાલ ઇન્ડ્રજીને ટાયફોઇડ થયો. આવીશ દિવસે તાવ ઉતર્યા પછી તેઓ ૧૮૬૪ ના મેમાં મુંબઈ આવ્યા.

ઇ. સ. ૧૮૬૮ માં ભગવાનલાલ ડા. લાઉ દાજીની અનુમતિથી જૂનાં મંદિરો, જૂની મૂર્તિઓ, થાંભલાઓ, પાળીઆઓ વગેરે ઉપરના જૂના લેખો જોવાની તથા તેની નકલો લેવાની ઇચ્છાથી ઉત્તર હિંદની મુસાફરીએ નીકળેલા. પહેલાં નાગપુર રસ્તે અલાહાબાદ જઈ ત્યાંના થાંભલા ઉપરના સમુદ્રગુપ્તના લેખની કપડાંઉપર પ્રતિકૃતિ લેવા માટે માંચડો બાંધવા સાડ અધિકારીઓની ખાસ પરવાનગી લઈ પાંચ દિવસે કામ પૂરું કર્યું. અલાહાબાદથી તેઓ બનારસ, ભીટારી, મથુરા અને દીલ્હી ગયા. મથુરામાં ઘણા જૂના લેખોની નકલો લીધી. પણ ત્યાં વધારે તપાસ કરવાની એમને જરૂર લાગી. વળી મથુરાની બનારમાંથી બાકરીઅન તથા સીથીઅન સીક્કાઓ વગેરે ખરીદતાં તેમનું ખીરસું ખાલી થઈ ગયું. અને તેઓ પાંત્રીશ જૂના લેખોની નકલો તથા પુષ્કળ સીક્કાઓ વગેરે લઈ પાછા મુંબઈ આવ્યા. પણ આ મુસાફરીને પરિણામે શોધખોળ અર્થે આ જાતનાં પર્યટનો કરવાની કેટલી આવશ્યકતા છે તેની એમને ખાત્રી થઈ ગઈ અને ડા. લાઉ દાજીને પણ ભારતીય પ્રાચીન પુરાવિદ્યાની સાચી પ્રગતિ માટે જૂના અક્ષરો તથા જૂની વસ્તુઓ ઓળખવામાં જેની નજર ફળવાઈ ગઈ છે એવાં માણસે કરેલાં પર્યટનોની ઉપયોગિતા સારી રીતે સમજાયેલી હોવાથી તેઓએ પ્રયત્ન કરીને બીજી વારની મુસાફરીનું ખર્ચ મુંબઈ સરકાર પાસેથી અપાવવા પ્રયત્ન કર્યો પણ ત્યાં જૂનાગઢના નામદાર નવાબ સાહેબે એ ખર્ચ કમુલ કર્યું. અર્થાત નવાબ સાહેબે એ કામ માટે એ વર્ષ સુધી ભગવાનલાલ ઇન્ડ્રજીને માસિક રૂપિયા બસોના પગારથી રોક્યા. આ રીતે ભગવાનલાલ જૂનાગઢ સરકારના નોકર થયા હોવાથી તેઓએ પોતાની મુસાફરીના હેવાલના ત્રિમાસિક રિપોર્ટોં નવાબ સાહેબ ઉપર લખી મોકલેલા. આ રિપોર્ટોંમાંથી કેટલાક સ્વં હરિલાલ માધવજી ભટ્ટને હાથ લાગેલા જે એમણે પુરાતત્વમાં છપાવ્યા છે. ૧ ભગવાનલાલ હવે પરણેલા હોવાથી ઇ. સ. ૧૮૭૧ ના માર્ચમાં પોતાનાં પત્ની સાથે હિન્દુસ્તાનની શોધખોળ માટેની મુસાફરી કરવા નીકળ્યા. આ વખતે ગવર્નમેન્ટ ઓફ ઇન્ડીઆના એ વખતના અન્ડરસેક્રેટરી મી. સી. જેન્લીઅલ પાસેથી મથુરા, આગ્રા, બનારસ, ફરૂખાબાદ, ગોરખપુર, ગાઝીપુર અને અલાહાબાદના માજીસ્ટ્રેટો ઉપર તથા ઇન્દોર અને ગ્વાલીઅર જેવાં દેશી રાજ્યોના પોલીટીકલ એજન્ટો ઉપર એક ડેમી ઓફીસીઅલ પત્ર લખાવી આપ્યો હતો. જે પત્રમાં પંડિતજીની મુસાફરીનું વિદ્યાવિષયક પ્રયોજન દર્શાવી તેને સર્વ-પ્રકારની મદદ આપવાની તથા લેખોની નકલો વગેરે ઉતારવામાં તેને કોઈ રોક નહિ એ જાતનો અંદોજસ્ત કરવાની લલામણ કરવામાં આવી હતી. આ લલામણ પત્રો પરવાનાઓ વગેરે લઈને પં. ભગવાનલાલ ઉપડ્યા. તેઓએ મુંબઈથી રેલ રસ્તે થઈ ખંડવા, ઓંકારેશ્વર, ઉજ્જૈન, બાધની ગુફાઓ, ધાર, માંડવગઢ, સાંચી સેલારી, ભોજપુર, શતધાર, પીપળીઆ એટલાં સ્થળોની પહેલા ત્રણ મહિનામાં મુલાકાત

લીધી. જ્યાં જ્યાં જાય ત્યાં જે કાંઈ પ્રાચીન શિલાલેખો, સીક્કાઓ, પ્રાચીન વસ્તુઓ મળે તેની નોંધ લીએ, સીક્કાઓ તો અને તેટલા ખરીદી લીએ, જૂનાં મન્દિરો, થાંભલાઓ વગેરેના ફોટાગ્રાફ લીએ, જૂના લેખોની નકલો પણ કરી લીએ. આ રીતે તેઓએ પહેલીજ ત્રિમાસિક મુસાફરીમાં ફોટાગ્રાફની ૩૬ પેટ્ટો લીધી હોવાનું લખેલ છે.

ભગવાનલાલ ધન્દ્રજી એ જૂનાગઢ રાજ્યને જે રિપોર્ટો લખેલા છે તેમાં પોતે જોયેલી તથા નોંધેલી પ્રાચીન વસ્તુઓનું વિગતવાર વર્ણન નથી પણ જુદાં જુદાં સ્થળનું તેમાં જોવા લાયક તથા જૂનું શું શું છે તેની નોંધ સાથે સામાન્ય અને સંક્ષિપ્ત વર્ણન કરેલું છે. આથી જૂના લેખો વગેરે જે ઐતિહાસિક મૂલ્યવાળી વસ્તુઓ એમને મળેલી તે ઉપરથી તૈયાર થયેલા નિબંધો તો ડા. ભાઉ દાજીએ પ્રાચીન શાંધ જોળનાં જર્નલોમાં આપ્યા હતા પણ ભગવાનલાલના રિપોર્ટોમાંથી એનો પ્રકાર સમજાય એવો એક નાનો કટકો નીચે ઉતાર્યો છે :—

સાંચીના સ્તૂપો

“ સાંચી ગામ જે તેની પાસેના કાનાખોડા નામના ગામને લીધે સાંચી કાનાખોડા એ નામથી સારી પેટે જાણીતું છે તે બીલસાથી ૩ કોસ નૈઋત્ય કોણુ તરફ થોડી ઉંચાઈવાળા ડુંગરના નીચા ઉત્તર ભાગ ઉપર વસેલું છે. ગામથી દક્ષિણ તરફ ઉંચા ટેકરા ઉપર બૌદ્ધ સ્તૂપો છે. સઘળા મળી ૧૧ કરતાં વધારે સ્તૂપો અહીં હતા. પણ માત્ર બે વગર સઘળા ખરેર થઈ પડેલા છે. અહીં સૌથી મોટો સ્તૂપ આશરે ૧૦૦ ફુટ અને તેનો નીચેનો વ્યાસ આશરે ૧૫૦ ફુટ છે. તેને ફરતો પથ્થરનો કંઠેરા છે. એ ઘણા લોકોની મદદથી બંધાયેલો છે. તે ઉપર તે લોકોના નામના સેંકડો ટુંકા લેખો છે. એ લેખો આશરે ઇ. સ. પહેલાં ૨૦૦ વર્ષના છે. આ સ્તૂપ મહારાજ અશોકના વખતમાં બંધાણો એમ ધારવામાં છે. એ કંઠેરા ઉપર આશરે ૬૦૦ વર્ષ પછીના લેખો પણ છે. અહીંના સઘળા લેખોની મેં નકલ કરી લીધી છે.

એ સ્તૂપના કંઠેરાના બનવા પછી આશરે ૨૦૦ કરતાં થોડાં વધારે વર્ષ પછી સુંદર દરવાજા બનાવેલા છે. તે ઉપરનાં ચિત્રો (પથ્થરમાં કોતરેલી આકૃતિઓ) ઘણાંજ સુંદર છે. તેથી ઇસ્વી સન પહેલાંની પહેલી સદીના લોકોનો પોશાક રીતભાત ઇત્યાદિની સારી ખબર મળે છે. ઘણું કરી તે સઘળાં ચિત્રોના ફોટાગ્રાફ લીધા. ”

“ સાંચીના સ્તૂપ પાસે એક દેવળમાં હું ઉતર્યો હતો. ચોક્કી અને મારીસરભરા માટે ભોખાળ સરકાર તરફથી બે સિપાઈ અને એક જમાદાર આવ્યા હતા. સાંચીનું કામ સઘળું દશ દિવસમાં પૂરું કરી સોનારીના સ્તૂપો જોવા ગયો. ”

ઉપર સાંચી જેવાં પ્રાચીન કળા ધામનો દાખલો ઉતાર્યો છે. પણ ભગવાનલાલ ધન્દ્રજીએ પોતે જ્યાં જ્યાં ગયેલા તે સર્વ સ્થળોની ટુંકી મોટી નોંધ લીધી છે.

૧ જુઓ પુરાતત્વ પુ. ૧ પૃ. ૪૩૬ તથા પુ. ૨ પૃ. ૩૬, ૧૫૬, ૨૮૯, ૪૨૯.

૨ જુઓ સૌરાષ્ટ્ર દર્પણ ૧૮૭૧ ડીસેમ્બરમાંથી પુરાતત્વ પુ. ૧ પૃ. ૪૪૧ માં કરેલો ઉતારો.

સાંચી જેવાં સ્થળોની મુલાકાત લેવા માટે શું શું કરવું પડતું તે એમના પોતાના શબ્દોમાંથી ઠીક સમજાય છે :—“ પ્રથમ જે વખતે હું જનરલ ડેલી સાહેબને મળ્યો હતો તે વખતે તેઓએ કહ્યું હતું કે બીલસે જવાને તારે પાછું ઇન્દોર આવવું પડશે. તે વખતે મને મળજે એટલે બીલસા તરફનો બંદોબસ્ત કરાવી આપીશ. તેથી હું તુરતજ સાહેબ મોકૂફને મળ્યો. એટલે તેઓએ હોલ્કર સરકારના વકીલ રામજીને બોલાવી મહારાજા હોલ્કર સરકારની મુલાકાત કરવાની મને લલામણુ કરી. અને બીલસે જતાં રસ્તામાં હોલ્કર સરકારના મુલકમાં મદદ માટે પરવાનો લખાવી આપ્યો તે એક સ્વાર સાથે અપાવ્યો. ત્યાર પછી બીલસા એ સીંધીઆ સરકારના તાબામાં છે તેથી સીંધીઆ સરકારના વકીલ અન્નાસાહેબને બોલાવી બીલસાનો લલામણુ પત્ર અને સીંધીઆ સરકારમાં ચાલતો ફકકો લખાવી આપ્યો. બીલસા પાસેના સ્તૂપો બીલસાના તાલુકામાં નથી પણ તે ભોપાળના ઇલાકામાં છે. તેથી ભોપાળના પોલીટીકલ એજન્ટ સાહેબ ઉપર મહેરબાન ડેલી સાહેબે પોતે લલામણુ લખાવી આપી. ”

ભગવાનલાલનું આ મુસાફરીઓમાં ઐતિહાસિક ઉપયોગની ઝીણી મોટી વસ્તુઓ ઉપર જે કે મુખ્ય ધ્યાન હતું પણ તે ઉપરાંત ધાર્મિક, અને સામાજિક રીતરિવાજો, દેશના જુદા જુદા ભાગના પહેરવેશ વગેરે તેમજ જાતે દેશી વૈદ્યકના જાણકાર હોવાથી વૈદ્યકીય ઔષધિઓનું તેનાં પ્રાન્તીયનામો સાથે, જ્ઞાન મેળવવાનો યથાવકાશ તેઓ પ્રયત્ન કરતા. આવી વિવિધવિષયની માહિતીની એમણે સુજરાતીમાં નોંધ કરી રાખી હતી. પણ દુર્ભાગ્યે એ નોંધની ચોપડીઓ નષ્ટ થઈ ગઈ છે.

ભગવાનલાલ ઇન્દોરએ ઉપર પ્રમાણે જૂની શોધખોળના હેતુથી ઇ. સ. ૧૮૭૧ ના માર્ચથી તે ૧૮૭૨ ના માર્ચ સુધીમાં જે મુસાફરીઓ કરી તેમાં ઉપર કહેલાં સ્થળો ઉપરાંત ઇન્દોર, સેહોર, સાંચી સ્તૂપો, સોનારી સ્તૂપો, શતધાર-સ્તૂપો, પીપળીઆ બીલેલીના સ્તૂપો, ઉદયગિરિ, બેશનગર (વિદિશા). બીલસા, ઉદેપૂર (માળવાનું બીલસાથી ૧૩ કોશ દૂર), એરણ, બનારસ, પ્રયાગ, ગડવા, દોલ્લી, કાલસી, વિરાટ, ગિરિરાજ, મથુરા, ગ્વાલીઅર, એટલાં સ્થળોની મુસાફરી કરી. છેલ્લી મુસાફરીમાં ગ્વાલીઅરમાં પં. ભગવાનલાલનાં પત્ની માંદાં પડી ગયાં હતાં. પણ મુંબઈ આવ્યા પછી ડા. ભાઉ દાજીની દવાથી એમને ફાયદો થયો. અને વળી ઇ. સ. ૧૮૭૩ ના ડીસેમ્બરમાં તેઓ મુસાફરીમાં ઉપજ્યા. આ મુસાફરી વખતે તેઓને નેપાળ જવાની તક મળી. નેપાળમાં તેઓએ ઘણાં હસ્તલિખિત પુસ્તકો જોયાં, નેપાળનાં પ્રાચીન સ્થાનોનો, નેપાળના ઇતિહાસનો તથા નેપાળના લોકોના રીતરિવાજનો અભ્યાસ કરી તેની નોંધ લીધી. નેપાળથી લખેલા રિપોર્ટોમાંથી એક પુરાતત્ત્વ (પુ. ૨ પૃ. ૪૨૯) માં જણાયો છે.

નેપાળમાં ભગવાનલાલભાઈ માંદા પડી ગયા. અને એમના મંદવાડના સમાચાર મળતાં એમના પિતૃતુલ્ય મુરખી ડા. ભાઉ દાજીએ પોતે જાતે પથારી વશ હોવા છતાં મુંબઈ સરકારના સેક્રેટરી મી. ડબ્લ્યુ. એન. વુડ મારફત નેપાળના રેસીડન્ટને તાર કરાવી ભગવાનલાલભાઈની તબીબતના સમાચાર મંગાવ્યા. અને રેસીડન્ટે જાતે જોઈ તાવ ઉતર્યો હોવાનો તારથી જવાબ આપ્યો. વળી નેપાળની દાળ માફક નથી

આવતી એમ જાણી ડા. ભાઉ દાજીએ તુરંદાજ પોષ્ટ પાર્સલથી દાજની કિંમત કરતાં પોષ્ટ ખર્ચના બમણા પૈસા ખર્ચી મોકલી.

પં. ભગવાનલાલ નેપાળથી સાજા થઈને ઇ. સ. ૧૮૭૪ ના શીઆળામાં મુંબઈ આવ્યા ત્યાં ડા. ભાઉ દાજીને પથારીવશ જોયા. અને ૧૮૭૪ ના મેમાં ડા. ભાઉ દાજીના સ્વર્ગવાસથી ભગવાનલાલભાઈ માથે ભારે ધા પડ્યો. પણ છેલ્લાં તેર વર્ષના ડા. ભાઉ દાજીના સહવાસથી ભગવાનલાલભાઈએ પ્રાચીન શોધખોળનું સાચું તત્ત્વ પોતાના ચિત્તમાં ઉતારી દીધું હતું એટલુંજ નહિ પણ અત્યાર સુધીના કાર્યથી ડા. જીલ્હર, જી. એમ. કેમ્પબેલ, ડા. કોર્ડીગટન, ડા. બર્નેસ, ડા. પીટર્સન, ડા. દ. કુન્હા વગેરે એ વખત નામાંકિત પ્રાચ્યવિદ્યાવિદો એની શક્તિ જોઈ ગયા હતા. અને તેથી એના મિત્ર થઈ ગયા હતા અને પ્રસંગોપાત્ત શોધખોળના કામમાં મદદ પણ કરતા. આ વિદ્વાનો પુરાવિદ્યાના વિષયમાં પં. ભગવાનલાલના મત તરફ ખાસ માન દ્રષ્ટિથી જોતા. ડા. જીલ્હરનો પં. ભગવાનલાલ સાથે ગુજરાતીમાં પત્રવ્યવહાર પણ કરતા અને એમની ગુજરાતી નોંધોમાંથી તારણ કરી અંગ્રેજીમાં નિબંધ તૈયાર કરવામાં મદદ પણ કરતા.

ઇ. સ. ૧૮૭૪ પછી ભગવાનલાલભાઈએ પહેલાં જેવી લાંબી મુસાફરીઓ કરી લાગતી નથી. પ્રસંગોપાત્ત ગેઝીટીઅરના કામને અંગે નાશક વગેરે સ્થળે ગયા હોય એ જુદી વાત. બાકી મોટે ભાગે મુંબઈમાં સ્થિર બેસી અત્યાર સુધીમાં જે પ્રાચીન શોધખોળમાં ઉપયોગી વસ્તુઓ એકઠી કરી કે જોઈને નોંધી હતી તેની વ્યવસ્થા કરી તેનાં પરિણામો જાહેરમાં મુકવાની પ્રવૃત્તિ કરવા માંડી. છેલ્લાં ચૌદ વર્ષ એમણે આ રીતે મુંબઈમાં ગાળ્યાં. મુંબઈમાં તેઓ પુરાવિદ્યાના કામ ઉપરાંત વૈદ્યકનું મોટે ભાગે ધર્મોર્થે દવા આપવાનું કામ પણ કરતા. ભગવાનલાલ ઇન્દ્રજી પાસે શિષ્ય તરીકે જ નહિ પણ છોકરા તરીકે ઇ. સ. ૧૮૭૭ થી ૧૮૮૬ સુધી રહેલા વનસ્પતિશાસ્ત્રી જયકૃષ્ણ ઇન્દ્રજી લખે છે કે “ગુરૂવર પં. ભગવાનલાલભાઈ જો કે વૈદ્યકનો ધંધો કરતા નહીં હતા તોપણ પોતાને એ વિદ્યાનું ધણું ઉચું જ્ઞાન હોવાથી અને એ વિદ્યા-વિષે પણ વ્યવહાર શોધખોળ કરતા હોવાથી તેમ પોતે સ્વભાવે ઘણાજ પરોપકારી અને માયાળુ હોવાથી ગરીબ કે તવંગરોને મફત દવા આપતા હતા. એટલુંજ નહિ પણ સારવાર કરવામાં વખત જાય તો તે સાફ કાર્ય કરવામાં ગયો એમ ઉત્સાહથી માનતા હતા.

દરદીઓ તરફ પંડિતજીને કેવી કરુણા હતી તેના બે દાખલા સદ્ગત જયકૃષ્ણ-ભાઈએ આપ્યા છે તે જાણવા જેવા છે. “એક વખત મુંબઈમાં માંડવી બંદરપર કોલેરા ફાટી નીકળતાં સ્વ. પં. જયેશ્વરામ મુકુંદજીના કુટુંબનાં એક બે માણસો ગુજરી ગયાં અને બીજાં ચાર પાંચ કોલેરાના સપાટામાં આવી ગયાં હતાં. તેઓ ગભરાઈને એકદમ ભગવાનલાલ ભાઈને ઘેર વાલકેશ્વર આવતાં રહ્યાં. તેઓની સઘળી સારવાર ભગવાનલાલભાઈએ પોતાને હાથે કરી હતી. અને આખી રાત અજમા અને નીમકની પોટલીનો પેટ ઉપર શેક વગેરે બીજી દવાદાર કરી તેઓને સારાં કર્યાં હતાં.” “બીજો દાખલો-ભગવાનલાલભાઈ પોતે આજની હોતાં કચ્છમુદ્રા તરફ હવાફેર કરવા ગયા હતા. ત્યાં લખનારના એક મિત્રે પંડિતજી પાસે એક ઘણીજ ગરીબ સ્થિતિની

નિરાધાર ડોસીના ગુડામાં અત્યંત દરદ થવાની હકીકત જાહેર કરી. અને જો બની શકે તો તે ડોસીને જોઈ તેને દવા આપવાનું કહ્યું હકીકત ઉપરથી ભગવાનલાલભાઈ દરદ સમજી ગયા. અને એક દવાની પેટી લઈ વેલમાં બેસી ગામમાં જઈ તે ડોસીને પગે પેલી પટ્ટી લગાડી ત્યાં આરથો કલાક બેઠા. અને ડોસીને જ્યારે થોડો આરામ જણાયો, ત્યારે ત્યાંથી ગયા.—પણ ઉતારે જઈ તેડી જનાર લખનારના મિત્રને કહ્યું કે જો કે મારી આવી માંદગીમાં ગાડે બેસી ગામમાં આવવા જવામાં મને ઘણી હરકત થઈ અને મારી કમરમાં બહુ પીડા થાય છે. તોપણ પેલી ડોસીને દવાની પટ્ટીથી જે દુઃખ ઓછું થયું છે એ વિચારથી હું મારું દુઃખ ભૂલી જઈશ.”

મી. જી. એમ. કેમ્પબેલ જેવા પંડિત ભગવાનલાલનાં વિદ્યા ભુક્ષિને તથા ચારિત્ર્યને યોગજનનાર અંગ્રેજ વિદ્વાને ભગવાનલાલભાઈની છેલ્લી માંદગી વખતે ૨૪-૨-૧૮૮૮ ના કાગળમાં જે લખેલું કે “તમારી હાલગીરું કામ પૂરું થવાનો વખત પાસે આવ્યો છે એ જાણી દીલગીરી થાય છે. તમે પુરાવિદ્યાવિષયક જે ઘણું કામ કર્યું છે તે બધું પ્રગટ થાય તેથી તમને જે આશ્વાસન મળે તે કરતાં ગરીબ દરદીઓને સાજાં કરવા માટે તમે ધન તથા શ્રમનો જે વ્યય કર્યો છે તે અત્યારે તમને વધારે આશ્વાસન આપશે.” તેનો અર્થ ઉપરના દાખલાઓથી સ્પષ્ટ થશે.

પં. ભગવાનલાલ ઇન્દ્રજીની વૈદ્યકપદ્ધતિ પણ ખાસ પોતાને માટે એમણે ઉપજાવેલી હતી. ખૂબ અસરકારક જે થોડી વસ્તુઓ એમને આયુર્વેદમાં લાગી તેનો તેઓ સમજણપૂર્વક વિશેષ ઉપયોગ કરતા. ડા. લાઉ દાજ અને ડા. નારાયણ દાજ જેવા એ વખતના પ્રખ્યાત ડોક્ટરોના સહવાસથી પાશ્ચાત્ય વૈદ્યકનાં મૂળ તરફ એમને સમજાઈ ગયાં હતાં અને એમની વૈજ્ઞાનિક પદ્ધતિથી વિચાર કરવાની ટેવવાળી બુદ્ધિ આયુર્વેદનાં ઔષધો અને ઉપચારોનો પણ વૈજ્ઞાનિક રીતે સમજીને ઉપયોગ કરે એ સ્વાભાવિક છે. ઐતિહાસિક શોધખોળમાં હમેશાં પ્રવૃત્ત રહેનાર ભગવાનલાલભાઈએ આયુર્વેદના ઇતિહાસના સંશોધનમાં ઉપયોગી થાય એવી કેટલીક સામગ્રી એકઠી કરી હતી. તેમ એ વિષયની કાંઈક રૂપરેખા પોતાના મનમાં ધરી હશે તો એ બધું એમની સાથે ગયું.

છેલ્લાં ચૌદ વર્ષો ભગવાનલાલભાઈએ મોટે ભાગે મુંબઈમાં કાઢ્યાં એ ઉપર કહ્યુંજ છે. એ વર્ષો દરમિયાન એમની શોધખોળનાં પરિણામો જગજાહેર થયાં અને એમની શક્તિની ભારતમાં તથા ભારતબહાર દેશ પરદેશમાં કદર થઈ. ઇ. સ. ૧૮૭૭ માં રોયલ એશિયાટીક સોસાયટીની મુંબઈની શાખાએ યોનરરી મેમ્બર ચુંટ્યા. ૧૮૮૨ માં મુંબઈ સરકારે મુંબઈ યુનિવર્સિટીના ફેલો નીમ્યા. હોંગના ફાઇલોસોફી, જીઓગ્રાફી અને એથનોલોજીના રોયલ ઇન્સ્ટીટ્યુટના ઑર્ડ ૧૮૮૩ માં પોતાની સોસાયટીના વિદેશી સભ્ય બનાવ્યા. લીડન યુનિવર્સિટીની સીનેટે ૧૮૮૪ માં ડોક્ટર (Honoris causa) ની પદવી આપી. અને છેલ્લી પદવીના ભગવાનલાલભાઈને ખબર આપતાં પ્રો. એચ. કર્ને લખેલું કે “ભારતીય પ્રાચીન લેખ અને વિદ્યાવિષયક તમારા અતિશય મૂલ્યવાન લખાણોથી વિજ્ઞાનની તમે જે સેવા કરી છે તેની આ કદર માટે હું તમને અભિનંદન આપું છું. તમારા કામની તમારા દેશ કરતાં યુરોપમાં

ઓછી કદર નથી થતી એની તમને આથી ખાત્રી થશે ” ૧૮૮૪ માં લંડનની રો. એ. સોસાયટીએ પણ ફેલો ચુંટ્યા.

પણ ભગવાનલાલભાઈ માનના ભુખ્યા ન હોતા. એમણે જે કંઈ તે કર્તવ્ય ગણીને કંઈ હતું અથવા એમ કહી શકાય કે એમને હાથે શોધખોળનું કામ ધણા ઉંચા પ્રકારનું થાય એવું એમના માનસનું ઘડતર થઈ ગયું હતું.

પં. ભગવાનલાલ એક સાદા સામાન્ય કેળવણી પામેલા બ્રાહ્મણ હતા. એમણે પોતાની સાદી રહેણીકરણી છેવટસુધી યૂરોપીયન મિત્રોનો ધણો પરિચય થયા પછી પણ જાળવી રાખી હતી. તેઓ પાઘડી એ વખતના બીજા પ્રશ્નોરા જેવી એમના ફેટામાં દેખાય છે તેવી બાંધતા, પાસાબંધી અંગરખું ઝીણી કસોવાળું અને ઘોતી પછેડી એવો જૂનો પોશાકજ એમણે રાખ્યો હતો. યુનિવર્સિટીના ડાન્વોફેશનમાં કે એવા મેળાવળાઓમાં જાય ત્યારે મોજા પહેરતા. આર મહિનામાં નૃસિંહ જયંતીનું વ્રત કરતા. તે દિવસે પોતાના શાલિગ્રામની એકાંત પૂજામાં અને ધ્યાનમાં આખો દિવસ ગાળતા. મૌન રાખતા. જરૂર પડે કાગળ ઉપર લખતા પણ બોલતા નહિ, થોડાં તકમરીયાં દુધમાં પલાળીને પીતા. પણ બીજાં કાંઈ ફળાહાર પણ લેતા નહિ. રોતે જાગરણ કરતા, અને બીજા દિવસે પૂજા કર્યા પછી એ આરડામાંથી બહાર આવતા. ભગવાનલાલભાઈ પોતાની જ્ઞાતિની બહાર કોઈનું ખાતા નહિ એ કહેવાની ભાગ્યેજ જરૂર છે.

આ સાદા બ્રાહ્મણમાં ચરક, સુશ્રુત, આર્યભટ્ટ વરાહમિહિર વગેરે પ્રાચીન તેજસ્વી બ્રાહ્મણોની શોધક બુદ્ધિ સહજ ઉતરી આવી હતી. એમાં ગિરનારના જૂના અક્ષરોએ કુતૂહલ જગાડ્યું, ડા. ભાઉ દાજીના યોગે પ્રાચીન અક્ષરો ઉકેલવાની કેળવણી આપી તથા શોધખોળની ઉપયોગિતા દર્શાવી અને બુલ્હર વગેરેના પરિચયે શોધખોળના આદર્શ માર્ગે એમની બુદ્ધિને રાખી. અને પછી તો કામકામને શીખવે એ ન્યાયે ભગવાનલાલભાઈની સંશોધક બુદ્ધિએ એવી પ્રગતિ સાધી કે એનામાં એક જાતની પ્રતિભા જાગી ઊઠી. કારણેના બધા અંકોડા બુદ્ધિપૂર્વક મેળવ્યા વગર પણ જૂના અક્ષરોનો સમય એમના મનમાં નક્કી થઈ જતો. જૂના સંકેતો સીકાઓ જોઈને એમને ક્ષત્રપાદિના સીકાઓમાં આગલા કયા અને પાછલા કયા એ સહજ સૂઝી જતું.

અમદાવાદની ૧૯૨૦ ની સાહિત્ય પરિષદના ઇતિહાસ વિભાગના પ્રમુખ તરીકે પોતે કરેલા ભાષણમાં શ્રી. બ. ક. ઠાકોરે એમને વિષે કહેલું છે કે:—

“ બીજાં ક્ષેત્રોમાં તેમ આમાં પણ આપણી ગુજરાત કાઠિયાવાડની ભૂમિએ એક એવું નરરત્ન આપણને આપ્યું હતું કે તે આખી દુનિયાના શ્રેષ્ઠ ઇતિહાસ શોધકોની વીણીવીણીને કરેલી હારમાં પણ દીપી ઉઠે. એ નરરત્ન તે પંડિત ભગવાનલાલ ઇન્દ્રજી.

આપણા દેશના પ્રાચીન લેખો, તામ્રપત્રો, પ્રશસ્તિઓ ગ્રન્થો આદિમાં તુટક વંશાવળિઓ અને સનના સ્પષ્ટ નિર્દેશ વગરની સાલો હોય છે એ જાણીતું છે, આમાંથી જેટલાં ભગવાનલાલ ઇન્દ્રજીએ ચોક્કસ એસાડી આખ્યાં તેટલી સંખ્યામાં અને તેટલા મહત્વનાં એમના પછીના બીજા કોઈક જ વિદ્વાને નક્કી કર્યા હશે.

ઇતિહાસની ઇમારત ચણી શકાય તે માટે જમીન સાફ કરવાની, પાણી પૂરવાની, ઇંટો પાડવાની અને બીજાં સાહિત્ય અપમાં લઈ શકાય એવા રૂપમાં તૈયાર કરવાની આવી અને આને મળતી સીકકાશાસ્ત્ર, ઇમારતશાસ્ત્ર, મૂર્તિશાસ્ત્ર, ઉપકરણશાસ્ત્ર આદિ અનેકાનેક વિદ્યાઓ છે. તેમાંની ઘણી ખરીમાં હિંદના પ્રાચીન કાળને લગતું જેટલું કાર્ય જેટલી શાસ્ત્રીયતા અને સર્ગ શક્તિથી ભગવાનલાલે કરી આપ્યું છે અને જેટલા મહત્વના નિર્ણયો એમણે સ્થાપી આપીને સર્વમાન્ય બનાવ્યા છે તેટલા એમના સમયના કે એમના પછીના આ વિદ્યાઓને લગતા કોઈપણ વિદ્વાને કરેલા નથી. પ્રાચીન ગ્રન્થો, ધર્મસ્વરૂપો, સંસાર રિવાજો, લોકકથાઓ, કલાઓનાં બુદ્ધા બુદ્ધા સમયનાં સ્વરૂપ આદિ વિષયોમાં પણ એમનું જ્ઞાન અત્યંત બહોળું અને સંગીન હતું, અને તેમાંથી ઇતિહાસ તારવવાની એમની શક્તિ વિલક્ષણ હતી. ટુંકામાં એમની પ્રવૃત્તિનાં પચીશ વર્ષ દરમિયાન...ને પાછળથી લંકા સુધીના પ્રદેશને લગતી પ્રાચીન વિદ્યાઓના વિષયમાં કોઈપણ મોટા નિર્ણય દુનીઆના કોઈપણ વિદ્વાને કર્યો હશે તેમાં ભગવાનલાલે જાતે શોધી, એકઠાં કરી, ઉકેલીને પૂરાં પાડેલાં સાધનો અને તે ઉપરથી પોતે ઉપજાવેલાં સૂચનો કારણભૂત હતાં. એમણે પોતે કરેલા નિર્ણયો પણ અતિમહત્વના હતા. અને સંખ્યામાં પણ ઘણા હતા. અને એવો કોઈપણ વિદ્વાન હતો નહિ જે પોતાના નિર્ણયને ભગવાનલાલનો ટેકો નથી એમ જાણવામાં આવતાં શંકામાં ન પડી જાય અથવા તો એથી ઉલટું પડિતજનો ટેકો છે એમ જાણવામાં આવતાં પોતાનો નિર્ણય સુદૃઢ થયેલો ન ગણતો. તે સમયના એક વિદ્વાને લખ્યું છે તે મુજબ ભગવાનલાલ એક હિન્દુ જેવા નામ અને મળતાવળા એક જર્મન જેવા દ્રઢ, ધીરજવાન, મહેનતુ, ખંતીલા અને શોધક, એક અંગ્રેજ જેવા ચક્રાર, સહાપ્રવૃત્તિમય, સ્વતંત્ર શુદ્ધિશક્તિના અને એક તીર્થંકર જેવા ગંભીર હતા. ”

ડા. જુલહર, જેમ્સ કેમ્પબેલ, પ્રોફેસર, ડા. બર્નેસ, ફલીટ, ડા. કોડીંગ્ટન વગેરે અનેક યુરોપીય વિદ્વાનો પં. ભગવાનલાલ પાસેથી પોતે અમુક શીખ્યા હોવાનું ઉમળકા ભરી આભારની લાગણીથી સ્વીકારતા એવી એમની વિદ્યા હતી પણ એમના સ્વભાવની જે વસ્તુએ કેમ્પબેલ જેવા વિદ્વાનો ઉપર બહુ અસર કરી હતી તે તો એમના નિઃસ્વાર્થવૃત્તિ, ઉદારતા, સત્યનિષ્ઠા-અને તે એવી કે વર્ષો સુધી એક શબ્દ પાછળ મહેનત કર્યા છતાં જો પોતાના મનને શંકા રહેતો પોતાનો તર્ક જાહેર ન કરે, વગેરે ઉંચા માનવ ગુણો હતા. કેમ્પબેલ કહે છે કે “ મરણકાળ માટે તમે જે હિંમત અને શાંતિથી તૈયાર થઈ રહ્યા છો તે વિષે મી. બીમભાઈ મને લાગે છે, આ ઉંચા ગુણો તમારા જીવનમાં કેટલા મોટા પ્રમાણમાં હતા એ જાણું છું એટલે મરણમાં યે તમને એ ગુણો આશ્વાસન આપશે એમ નિઃશંક માનું છું. તમને ખોતાં દુઃખ થાય છે. તમે મને જે અગત્યની મદદ વારંવાર કરી છે તે કરતાં પણ આટલા બધા વિદ્વાન, મૌલિક અને ઉચ્ચ ચારિત્ર્યવાળા એક મિત્રની યાદગીરી મારી પાસે રાખી જાવ છો એ માટે વધારે ઉપકૃત છું. ”

ગુજરાતીઓ અને હિન્દુ કાયદામાં તેઓની વિશિષ્ટતાઓ વિષે કાંઈક

લે. તનુભાઈ દેવીદાસ દેસાઈ, સોલીસિટર

આખા ભારતવર્ષમાં હિન્દુસમાજ હંમેશા જુદા જુદા સ્થળોએ સમય-કાળ-સ્થિતિ અનુસાર વર્તેલો આવ્યો છે. અને તેથીજ પ્રાંતોવાર જોઈએ તો દાયલાગ અનુસાર ચાલતો જંગાળ પ્રદેશ કે મિતાક્ષરાની મિથિલા કે મદ્રાસ કે બનારસ શાળાઓ અનુસાર ચાલતા માગધીઓ કે મદ્રાસીઓ કે ઉત્તર હિન્દીઓ કરતાં આપણે ગુજરાતીઓ જેને મુખ્યત્વે ‘મયુખ’ નો કાયદો લાગુ પડે છે તે કંઈક અંશે જુદા છીએ અને અહિં તે જતાવવાનો અદ્ય પ્રયાસ કરવામાં આવે છે.

યાત્રવલ્લય સ્મૃતિ ઉપર ઋષિ વિદ્યાનેશ્વરે ‘મિતાક્ષરા’ લખી અને સદીઓથી તે જંગાળ સિવાય આખા ભારતવર્ષનું કાયદાનું મુખ્ય અને મૂળ પુસ્તક રહ્યું છે પરંતુ હિન્દુસમાજ હિન્દુ કાયદાની ખૂબી એજ રહી છે કે સમય-ધર્મ અનુસાર એમાં હંમેશા ફેરફાર થયા કર્યા છે. રૂઢિચુસ્ત સ્થિતિસ્થાપકતા એ આપણું લક્ષણ કદી રહ્યું નથી, અને જેમ સદીઓ નીકળી, વેપાર વાણિજ્ય વધ્યાં, પરદેશગામી થવા લાગ્યા તેમ આપણા કાયદામાં ફેરફાર પણ થતો રહ્યો. અને તેને માટે તે મહાન વિચારક અને લેખક શ્રી. નિલકંઠ ભટ્ટજીના, આપણે ગુજરાતીઓ આભારી છીએ જેમણે ૧૭ મી સદીમાં પૂરા ભાગમાં ‘મયુખ’ લખ્યું અને આખા ગુજરાતે-અધેય વસતા ગુજરાતીઓએ-તે સ્વીકાર્યું. તે આજ સુધી આપણા કાયદાનું પૂરતક રહ્યું છે. અને મુખ્ય અને ઉત્તર કેનરામાં રહેનારાઓને પણ આપણે પાસ લગાજ્યો છે ત્યારે આપણે જોઈએ કે નિલકંઠ ભટ્ટજીને અનુસરીને આપણે-ગુજરાતીઓએ મહત્વના શું ફેરફાર કર્યા.—કરાવ્યા છે.

પહેલી વિશિષ્ટતા :—સ્ત્રીઓના મિલકત સંબંધી હકોમાં આપણા ગુજરાતીઓને બીજા હિન્દુઓ કરતા વિશેષ હક છે. દાખલા તરીકે એક ગુજરાતી વિધવાને તેનો પતિ પુત્ર મૃત્યુ વગર મરી જાય તો જે ‘જંગમ મિલકત’ વારસામાં મળે તેને પોતાની જાંઘળીમાં ગમે તેમ ઉપભોગ કરવાનો હક નિલકંઠે સ્વીકાર્યો અને આપણે પાળ્યો. જ્યારે ઉત્તર કે દક્ષિણ હિન્દમાં તે વિધવાને તો તે મિલકતની ઉપજનોજ ઉપભોગ કરવાની છટ મળતી. સાથે સાથે આપણા જૈન ભાઈએનોમાં રિવાજ આગળ વધ્યો અને તેઓએ તો સ્વીકાર્યું કે વિધવા સ્ત્રી પતિની મિલકતની કુલમાલીક તરીકે ઉપભોગ કરી શકે અને જૈનો મુખ્યત્વે ગુજરાતીઓ છે એ જાણીતું છે—

પણ ગુજરાતીઓ વ્યાપારવાણિજ્યમાં હોશિયાર રહ્યા. મિલકત કુટુંબમાં સચવાય એ એમનું લક્ષ્ય રહ્યું. એટલે સ્ત્રીને સ્ત્રીધન ઉપર હકક ભોગવવા આપ્યા. પરંતુ સ્ત્રીધનમાં જે 'ભત્ત' વિભાગ છે એટલે કે પતિએ આપેલ બક્ષીસો ધત્તાદિ કે 'અન્વેધ્યક' એટલે કે લગ્નબાદ સગા સંબંધીઓએ આપેલ બક્ષીસો ધત્તાદિ સંબંધમાં બીજા બધા પ્રાંત કરતાં વિશેષ ફેરફાર કરીને છોકરા-છોકરીઓને સરખે હિસ્સે માતાના મરણ બાદ આપવું એમ ઠરાવ્યું. પિતૃપક્ષે આવેલ વારસો વિ. જેને હમણાં (non-technical Streedhan) તરીકે ઓળખવામાં આવે છે તેને માટે છોકરાઓને પહેલાં મળે અને છોકરીઓને પછી મળે એમ ઠેરવ્યું :—

બીજી વિશિષ્ટતા :—ગુજરાતીઓ અને ગુજરાતની અસર થયેલ મુંબઈ પ્રાંતમાં સ્ત્રીઓને વારસાના હકકદાર તરીકે સ્વીકારવામાં આવેલ છે પરંતુ મદ્રાસ પ્રદેશ ધત્તાદિમાં સ્વીકારવામાં આવેલ નથી. દાખલા તરીકે બહેન-ફોઈ-પુત્ર-પૌત્ર વધુઓ-કાકી-માસી ધત્તાદિને આપણે સ્વીકારીએ છીએ પરંતુ મદ્રાસીઓ કે ઉત્તર હિન્દવાસીઓ સ્વીકારતા નથી.

ત્રીજી વિશિષ્ટતા :—એકત્ર હિન્દુ કુટુંબમાં કૌટુંબિક મિલકતની વહેંચણી થાય ત્યારે આપણે પત્નીને પૂત્ર સમોવરી ગણી તેણીને સરખો હિસ્સો આપ્યો ત્યારે મદ્રાસે તે ન સ્વીકાર્યો. મદ્રાસીઓ તો તેને ભરણપોષણનો હક આપી સંતોષી રહ્યા. આપણે તેણીને 'જંગમ મિલકત' વહેંચણીમાં જે મળે તેનો તેણીને જેમ ગમે તેમ તેણીની જીંદગીમાં ઉપભોગ કરવાની છૂટ આપી. ત્યારે ઉત્તર હિન્દીઓએ સ્વતંત્રતા ન આપી શક્યા તેમણે તો ફક્ત એ ભાગની ઉપજનીજ અધિકારી ઠેરવી.

ચોથી વિશિષ્ટતા :—એક હિન્દુ પુરુષ પૂત્ર વગર મરી જાય અને તેણે પોતાની જીંદગીમાં દત્તકપૂત્ર લીધો ન હોય તો વિધવા પત્નીથી દત્તકજ ન લઈ શકાય એ નિયમ 'મિથિલાવાળાં' એટલે મગધવાસીઓ પાળે છે. જ્યારે ઉત્તર હિન્દના 'બનારસ' શાળાના નિયમો પાળનારાઓ સ્ત્રીને જે પુરુષ તરફથી ખાસ 'હૂકમ' ન હોય તો તેણી દત્તક લેવાને નાલાયક ઠેરવી; અને મદ્રાસીઓએ આગળ વધીને ઠેરવ્યું કે કુટુંબના માણસોની પરવાનગી લઈને વિધવા પત્ની દત્તક લઈ શકે પરંતુ ગુજરાતીઓએ અને ગુજરાતનો પાશ લાગનારા મુંબઈ પ્રાંતવાસીઓએ આગળ વધીને હિન્દુ પત્નીને તેણીને યોગ્ય લાગે ત્યારે કોઈપણ કુટુંબની પરવાનગી લીધા વગર દત્તક લેવાની 'સંપૂર્ણ સ્વતંત્રતા' આપી કે જેથી તેણી કુટુંબીઓની દયા પર જીવવાને બદલે પોતાને યોગ્ય લાગે ત્યારે દત્તક લઈને પોતાનું તથા પતિનું ભલું કરી શકે.

પાંચમી વિશિષ્ટતા :—'અનુલોમ' લગ્ન એટલે ઉંચ ગાંધીના પુરુષ અને નીચી જાતિની સ્ત્રીના લગ્ન આપણે કાયદેસર ઠેરવ્યાં. જ્યારે ઉત્તર હિન્દુસ્થાનીઓ કે બીજાઓએ 'અનુલોમ' ને હજી સ્વીકાર્યો નથી. પરંતુ આ વિશિષ્ટતાઓમાં હવે ફેરફાર થતો જાય છે. હવે પ્રજા જાગૃતિના જીવાળ સાથે હિન્દુ કાયદામાં ધારાસભાનો આશ્રય લઈ નવા ધારાધોરણો, એક સપાટી પર હિન્દુ સમાજને ધડવાના મનોરથો સાથે અમલમાં આવતા જાય છે. અને પરિણામે આપણી વિશિષ્ટતા કાંઈક અંશે

ઓછી થતી જાય છે. દાખલા તરીકે ડૉ. દેશમુખે વિધવાઓને વારસા હક્કનો કાયદો પસાર કરાવ્યો પરિણામે ઉપર જણાવેલ વિશિષ્ટતા કે એક ગુજરાતી પોતાના પતિની જંગમ મિલકત કે જે વારસામાં તેણીને મળે છે તેનો પોતાની છંદગીમાં જેમ મરજી પડે તેમ ઉપભોગ કરવા સ્વતંત્ર હતી તે હવેથી ભોગવી શકશે નહિ અને બીજા પ્રાંતોની સ્ત્રીઓ માફક 'ઉપજ' નીજ ઉપભોગી થવાને યોગ્ય બની રહી છે અને પ્રગતિને અદલે પીછેહઠનો ભોગ થઈ પડી છે—એટલે હવેથી કાયદા ધડનારાઓ આપણી વિશિષ્ટતાઓ ન ભૂલે અને તેને આંચ ન આવવા દે એ ધ્યાનમાં રાખે એજ ધરજી.

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